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In Plain English

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PREVENTATIVE MAINTENANCE

Tweak & Troubleshoot Windows

*Customize
Microsoft's Latest OS!*

VISTA

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Tweak & Troubleshoot

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SanDisk V-Mate Video Memory Card Recorder

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HTML

Use The ALT & TITLE Attributes

Roxio PhotoSuite 7 Platinum

Working With Video

Security

Five Steps To Fight Spam

Microsoft Word 2002

Create Index Entries, Part 2

Broderbund Print Shop 20 Deluxe

Use Photos In Greeting Cards

Corel WordPerfect 11

Insert A Watermark

Email

Check Multiple Inboxes Through Gmail

Adobe Photoshop Elements

Make A Slideshow Sing

Adobe InDesign CS2

Take Control Of Text Importing

Microsoft Works 2005

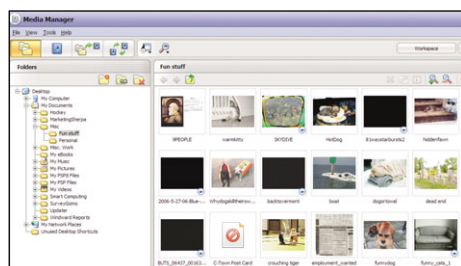
Simplify Email With Groups

Microsoft Access 2002

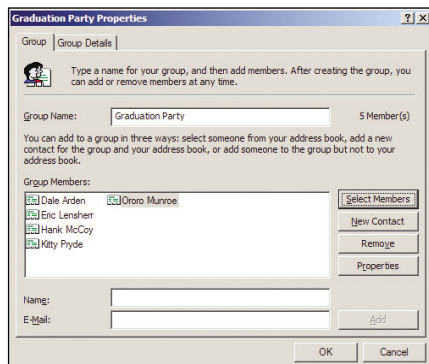
Learn How To Use The Relationships Window



Security



Roxio PhotoSuite 7 Platinum



Microsoft Works 2005



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Editor's Note

Remember your first real bicycle? You know, the one with no training wheels? Mine was a red Schwinn with big, fat tires and a little silver (well, chrome-plated) bell on the handlebars. I loved that bike.

But I loved it even more once I'd tricked it out. First, the wimpy little bell had to go, replaced by a bronze (OK, bronze-plated) horn with a black rubber bulb on one end; it made an irritating-to-adults (and therefore eminently satisfying) "Uh, oooohgaaaa" sound that reminded me of the cars in the old movies. Still, that wasn't enough. The bike needed playing cards clothespinned to the frame so that each spoke would thwack the card as it went by; the result was a great "frapping" noise that, to my very small mind, sounded exactly like a motorcycle. (A 1961 Triumph 650 motorcycle, to be exact.)

Naturally, that wasn't the end of it. The bike's handlebars needed to be turned over, streamers needed to be added to the grips, and a luggage rack to the rear fender. The front fender needed

to come off altogether, of course.

We like to customize things, to place upon them the stamp of our own personalities. Along the way, we like to see if we can make things work a little better, run a little faster, behave in a fashion we consider a bit more convenient.

Well, the same is true of operating systems in general and of Windows' new Vista operating system in particular. Don't like the way it looks? Change it. Don't care for the way it behaves? Change that, too. In fact, go right ahead and make it look and act exactly like Windows XP if you like. We won't stop you.

In fact, we'll help you. This month's issue of *Smart Computing* focuses on ways to tweak and troubleshoot Vista. We'll help you change it, fix it, speed it up, make it more secure, and keep it stable. You'll need to supply your own clothespin and playing card, though.



ROD SCHER, PUBLICATION EDITOR

Now Available On Newsstands . . .

Computer Power User * PSU Blowout

CPUs and graphics cards get lots of attention in *CPU*, but without power they're just so much sand and copper. Find out what you need to know before you buy your next PSU, plus take a look at our reviews of some of the latest high-end and midrange units this month.

PC Today * Ultra Mobile PCs

Unless you enjoy keeping up with the latest highly portable high-tech gadgets, you might not take a second glance at Ultra Mobile PCs. But UMPCs might just be the star guiding the future of mobile computing, so in this month's *PC Today* we give them a good look.

First Glimpse * HDTV Buying Guide

LCD, DLP, plasma, 1080p . . . most of us would love to have an HDTV, but it's often difficult to know where to start when you're ready to buy. In this month's issue of *First Glimpse*, we tell you everything you need to know about sleek and sexy HDTVs before, during, and after the shopping trip to Best Buy.

Reference Series * Fix Your Own PC

Computers, like cars, always seem to break down just when you need them most. When your PC has problems, you can save time and money (and prevent a lot of frustration) if you know how to fix things yourself. Read the step-by-step articles in this issue and learn how to troubleshoot hundreds of common computing problems.



Corrections/Clarifications

Page 37 of the May issue contained a typo. The correct URL for the Journey Systems Web site PSU calculator is www.journeysystems.com/power_supply_calculator.php.



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DESKTOPS & LAPTOPS

IdeaStorm Whips Up An Open-Source Tsunami

Imagine if you could access a communication pipeline that led directly to your computer manufacturer's top brass. What would you say? What would you suggest? If you own a Dell computer, are considering buying one, or simply want to chime in on the state of PC development, you can voice your opinion using IdeaStorm, Dell's Web-based community idea board.

An examination of current ideas and discussions at IdeaStorm (www.dellideastorm.com) gives us a bird's-eye, and sometimes surprising, view of issues considered most important to PC users. Currently, one of the most commonly debated ideas revolves around open-source software.

On Feb. 16, a board member suggested that Dell "offer the three

top free Linux versions for free pre-installation on all Dell PCs," adding that "quality free and open-source software drastically lowers the cost of new PCs and helps prevent software piracy." The member also suggested that Dell offer easy multiboot options for Windows XP, Vista, or even no Windows at all, which would allow for a Linux-only system.

This post garnered more than a thousand comments from other members in the span of a month, many of which wholeheartedly supported the open-source-friendly ideas, while others questioned whether offering PCs using open-source operating systems would be a worthwhile venture for Dell.

Wrote user jrpettus: "I got a new Dell XPS 410 and the first

thing I did was get rid of Windows XP and load Ubuntu on it. It runs faster [and] gives better overall performance, and everything I wanted to do with Windows I can do with Linux for considerably less cost. Considering the high price of Vista and the need most users will have to also upgrade their hardware to run it, a lower priced alternative should be available."

User sgt.pepper.1967 offered a differing opinion: "Pre-installing (thus actually having to support) a *NIX OS would be expensive. There would be some consumers that aren't particularly attached to Windows, but would choose the *NIX purely because of the price savings, with ignorance on the differences between *NIX and Windows (try telling the average computer user how to compile source code, let alone getting an ATI card to work as it should)."

Likely as a result of the heavy interest in open source at IdeaStorm, Dell created an online survey effective March 13 through March 23 that asked visitors about their potential interest in Linux. Survey questions included: Would your Dell system with Linux factory installed be for home or office use? Which systems should we prioritize on (sic) for Linux factory installation? What types of activities will you perform on your Dell system with Linux factory installed? ■



Thanks to IdeaStorm, an innovative message board from Dell, regular users are able to voice their opinions about the future of computers.

STORAGE

Encrypting Drive Takes No Chances

Notebook theft can be tough to avoid, and it's becoming increasingly more difficult to find excuses for not securing the data on these devices. Not only is software available that can lock down sensitive data on hard drives, but hardware-based encryption technology is now emerging that protects everything on the hard drive, not just certain files.

For example, Seagate announced that its Momentus 5400 FDE.2—what it calls the world's first encrypting 2.5-inch notebook hard drive—will appear in secure laptops manufactured by ASI Computer Technologies.

Instead of encrypting only certain user-selected files or drive partitions, the Momentus 5400 FDE.2 encrypts the entire drive, preventing unauthorized users from accessing data stored on it. Known as full disk encryption, this technology is considered more secure than software-based encryption because the keys and encryption

functions reside on the drive and don't interact with the operating system.

Authorized users can access the drive's contents with a password, and third-party add-ons can provide additional or alternative authentication methods, such as thumbprint or smart card scanning.

The drive uses AES (Advanced Encryption Standard) 128-bit encryption that matches the throughput of the drive's interface to prevent encryption-related performance slowdowns. Also included is cryptographic drive wiping (that is, secure erasing), preboot authentication, and TPM (Trusted Platform Module) support for local encryption key backup and archiving. ■



Seagate's Momentus 5400 FDE.2 might not look special at first glance, but this notebook hard drive includes full-disk, 128-bit encryption.

DISPLAYS

Innovative Tech Projects Images In Midair

Although at times it seems we'll never truly witness some of the fascinating yet fake technologies seen in films such as "Minority Report," rest assured that companies are indeed pushing the envelope to bring futuristic inventions to the mainstream—or at least *close* to the mainstream.

One of these companies is IO2 Technology (www.io2technology.com), which has released the Heliodisplay M3, the latest iteration of its midair display. If you're wondering what a midair display is, it's exactly how it sounds: a display that projects an image that appears to hover in midair, similar to the hologram scene featuring Princess Leia in "Star Wars."



Although many details surrounding the technology are under wraps, developer Chad Dyner has revealed that the Heliodisplay projects an image onto a cloud of microscopic particles. A heat pump uses surrounding air to create the particle cloud by lowering the temperature of the air, in turn creating condensation.

The newest model of the Heliodisplay uses a "tri-flow" system for increased image stability and uniformity and features a far brighter and clearer image than previous models. The M3's standard resolution is 1,024 x 768. Targeted markets for the technology include teleconferencing, board rooms, and hotel and corporate lobbies. ■

PRINTERS & PERIPHERALS

Print Your Pictures While On The Go

Whether traveling for work or pleasure, bringing a digital camera along for the trip has become second nature for many people. As such, some of those people have slowly begun to expand their picture-taking capabilities while on the road, even to the point of printing pictures. With products such as Canon's new Pixma iP90v Photo Printer, that capability is now easier than ever.

The iP90v Photo Printer (\$250; www.usa.canon.com) is based on the Pixma iP90, which itself proved to be a popular option for photographers on the go. The new printer includes Canon's FINE (Full-photolithography Inkjet Nozzle Engineering) print head with 1,088 total nozzles, helping to produce high-speed prints over wide areas in a single pass. According to Canon, picture prints take on smooth gradations, accurate skin tones, and rich colors, all at a maximum color resolution of 4,800 x 1,200dpi (dots per inch).

Simply because the printer is mobile doesn't mean users have to sacrifice picture sizes, because the iP90v can handle print sizes of 4 x 6, 5 x 7, and 8.5 x 11 inches. For standard black-and-white printing, the printer can even print when

the black ink tank is empty by mixing cyan, magenta, and yellow inks.

Several mobile-minded additions are available for the iP90v, including a Bluetooth unit (\$80), a lithium-ion battery and battery housing (\$100), and an automobile power kit (\$90). ■



Canon's new Pixma iP90v brings high-quality photo printing to users on the road, offering varied picture print sizes and high resolutions.

CPUs, CHIPS & CARDS

Intel Introduces A Flash Foe

Is a flash memory replacement on the way? Quite possibly, because Intel has big plans for its PCM (phase-change memory), which features several benefits not offered by traditional flash memory.

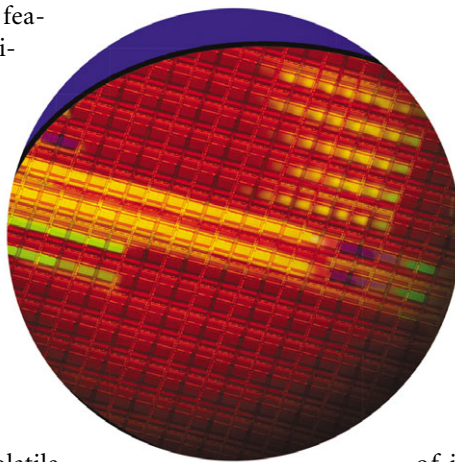
Flash devices degrade each time data is written to them, leading experts to contend that the devices are generally unreliable after they hit about 10,000 writes. PCM, on the other hand, can handle more than 100 million write cycles, making the technology not only a potentially viable replacement for flash, but also for conventional DRAM (dynamic random-access memory).

"The nirvana is how to make non-volatile DRAM," said Ed Doller, chief technology officer of Intel's flash memory group, during a reporter briefing at

Intel's headquarters. "Phase-change memory gets us pretty close to nirvana."

In addition to its increased resiliency, PCM (also known as PRAM) boasts write times that far outpace flash memory—Doller said the memory will be at least 1,000 times faster. In addition, the memory can use less power than previous technologies, which likely will help it find a home in mobile devices. In fact, Doller noted that Intel is aiming PCM initially at mobile phones, which use flash memory to store crucial components, such as the operating system and user data.

Intel is ready to begin sending samples of its PCM chips to manufacturers and hinted at potential plans to start mass production at the end of the year. ■



HD Photo Looks To Seize Format Crown

We've been living with the JPEG (Joint Photographic Experts Group) image format for so long that it's difficult to imagine another format replacing it, but that's exactly what Microsoft has in store with its new HD Photo format.

Previously called Windows Media Photo, the HD Photo format offers several improvements upon JPEGs, including higher image quality, greater preservation of data, and advanced features. HD Photo's compression is up to twice as efficient as JPEG compression, resulting in images that are half the file size of competing standards but contain fewer artifacts.

"With HD Photo, we're taking a new approach to creating and editing photos that simply isn't available to photographers with



today's formats," said Amir Majidimehr, corporate vice president of the Consumer Media Technology Group at Microsoft. "HD Photo fully preserves the original image fidelity with high dynamic range while still allowing for significant improvement in compression size."

Both lossless and lossy image compression are offered with HD Photo, and users can undo any changes to images thanks to the format's ability to retain data when changes are made to color balance and exposure settings.

At press time, a beta version of an HD Photo Windows plug-in for Adobe Photoshop software was available at www.microsoft.com/downloads, but a final, free version of plug-ins was expected for release in early May. ■

PROBLEM-SOLVER: TROUBLESHOOTING THE NEWS

My LCD keeps reverting to a lower resolution.

If you're using an ATI or Nvidia graphics card and your monitor reverts to a lower resolution each time you start your PC, first try downloading and installing the newest drivers for your card. If that doesn't help, or if you're already using the latest drivers, try using third-party drivers from OmegaDrivers.net (www.omegadivers.net).

My hard drive has grown increasingly louder over the past few months.

Although any new hard drive noise can be alarming, a louder-than-usual

hard drive doesn't necessarily signal impending drive death. Hard drive motors can increase in noise for various reasons that aren't always related to outright failure, but just in case, regularly back up your important data.

My USB printer disconnects each time a print job begins.

If your printer is connected to a USB hub, try connecting it to a different port on the hub or directly to a USB port on your PC. If neither of these solutions work, use the Windows Device Manager to uninstall the printer, turn off the printer,

reboot your PC, and then turn on the printer to begin the automatic installation process.

Every time I boot my PC, the BIOS (Basic Input/Output System) resets the time and indicates it found a new CPU.

These are classic symptoms of a dead CMOS (complementary metal-oxide semiconductor) battery, which resides on the motherboard. Contact the motherboard or computer manufacturer support department (or visit the online support Web page) to receive a replacement battery and instructions for installing it. ■

Yahoo! One-Ups Google In Mobile Search Race

Google revolutionized Web searches on desktops, but it lost a huge step in the mobile search race recently when Yahoo! announced that its oneSearch, previously available only in Yahoo! Go for Mobile 2.0, is now accessible on any mobile phone that can access the Web.

The differences between oneSearch and Google's mobile search results, as portrayed in a 21-page comparison document compiled by Yahoo!, are striking. For example, a search for "New York" in Google returns links with short descriptions, pointing to sites such as the city's tourism page and the New York Wikipedia page and others. With oneSearch, users receive instant glimpses of the city's time, weather, and theaters (along with addresses), as well as links to a city guide, current city events, related Flickr photos (high-lighted with thumbnails), Web images, news articles, traffic conditions, and related Web sites.

Search for "camera" in Google, and you'll receive seemingly related links such as CAMERA, or the Committee for Accuracy in Middle East Reporting in America, while on oneSearch, you'll see actual pictures of popular digital cameras, along with prices ranges; product categories; nearby camera stores; camera-related news stories; Web images of cameras; camera-related review sites; and more. If you click one of the digital camera product

The image shows two side-by-side search result pages for the query "New York". The left page is a Google search result, showing a list of text-based links with brief descriptions. The right page is a Yahoo! oneSearch result, which is more visually rich and includes a variety of content types: weather forecasts, city guides, Flickr photos, news articles, and traffic updates. The Yahoo! oneSearch results are presented in a more organized and interactive manner, with small images and links to related content.

Yahoo!'s new oneSearch mobile search service delivers a wide range of varied search content, compared with the text-based links provided by Google.

links, you'll be greeted with a description of the product, specifications, prices of the product at popular online retailers, and user reviews.

While Google will return results on local pizza joints if you search for "pizza," oneSearch returns similar results along with starred user ratings directly above each listing. Searching for "gourmet" in Google will point you to sites such as Epicurious and The Gourmet Kitchen, while oneSearch provides links to these sites along with nearby gourmet retailers, news articles, Web images, related business categories, and more.

According to Yahoo!, 85% of all phones in the mobile market can use the service, and the company said user feedback is positive. "Consumers that have tried oneSearch love it, telling us it's easier and more helpful than any other mobile search services they've used," said Marco Boerries, senior vice president of connected life, Yahoo!. "We are delivering the results consumers want with just one search, not a list of Web links."

If you use Google or another search engine and would like to try oneSearch, open the browser on your mobile phone and browse to m.yahoo.com. ■

DULY QUOTED

"Some people just delete and ignore it. But if someone was throwing stones through your window, would you just ignore it? It's anti-social behavior and they shouldn't be doing it in the first place."

—Gordon Dick, of Edinburgh, Scotland, comments on his decision to sue Transcom Internet Services for allegedly sending him spam. Dick won £750 (\$1,445) in damages and £619 (\$1,190) in court costs.

Source: Associated Press

News From The Help Desk

Our Most Common Tech Calls

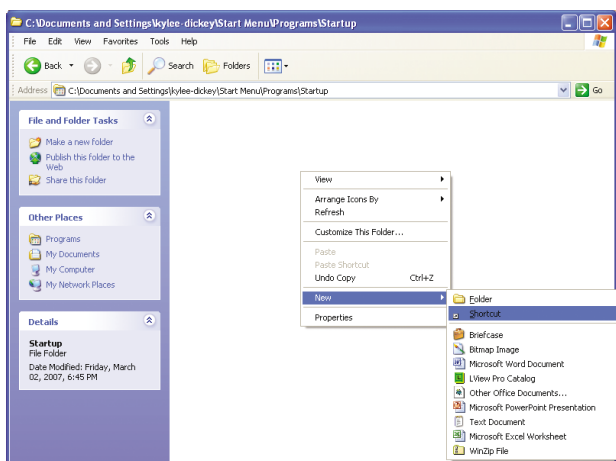
COMPILED BY KYLEE DICKEY

Each month we receive numerous technical support calls and email messages. Some computer problems are fairly common, and we find that many callers struggle to resolve the same issues. In this article, we cover four of the most common or timely tech support questions and provide our solution for each of them.

Q How can I make a program start automatically each time that Windows starts up?

A There is a very simple way to make a program launch automatically every time that Windows loads. All you need to do is place a shortcut to the program in your Windows Startup folder. To do this, double-click My Computer and Local Disk (C:)—or the drive on which you installed Windows. Then double-click Documents And Settings and your username. Next, double-click Start Menu, Programs, and Startup. Right-click a blank space in the window and select New and Shortcut. A Create Shortcut dialog box will appear. Click the Browse button and select the program that you would like to launch automatically each time Windows starts. Click OK and Next. Then click Finish.

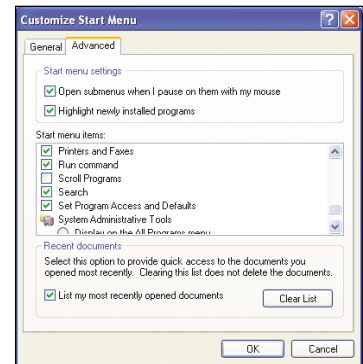
If you ever want this program to stop launching automatically when Windows starts, all you need to do is double-click My Computer, Local Disk (C:)—or the drive on which Windows is installed—Documents And Settings, your username, Start Menu, Programs, and Startup. Right-click the shortcut to the program and click Delete. When prompted, confirm that you want to send the shortcut to the Recycle Bin.



It is simple to add a program to Windows' Startup folder so that the program will automatically launch when Windows loads.

Q To fix a problem with my computer, I'm supposed to click the Start menu and select Run, but I don't see an option named Run in the Start menu.

A The Run command is an option that you can configure to appear or not appear in the Start menu. If you don't see an item titled Run in your Start menu, right-click the Start button on the Taskbar and click Properties. In the resulting Taskbar And Start Menu Properties dialog box, make sure that the Start Menu tab is selected and click the Customize button. In the Customize Start Menu dialog box, click the Advanced tab. Scroll through the Start Menu Items list until you find Run Command, which is located near the end of the list. Click to add a check mark to the Run Command checkbox. Then click OK and click OK again. You should now see the Run command listed in your Start menu.



If you don't see the Run command listed in the Start menu, make sure the Run Command checkbox is selected in the Customize Start Menu dialog box.

Q I keep seeing the message "Outlook Express could not be started because MSOE.dll could not be loaded." What does this mean, and how can I make Outlook Express work again?

A According to Microsoft, this is an error message that can occur when you use Windows Me. There are a couple of things that can cause this error message. First, it is possible that Outlook Express cannot find your Windows Address Book. Second, it is possible that you have more than one version of Outlook Express installed, and the software doesn't know which installation's files to use.

If you use Windows Me and Outlook Express 6, you may encounter this error if the Windows Address Book has been uninstalled or if the software can't locate the Windows Address Book.

Microsoft says that you can resolve this problem by clicking Start, Settings, and Control Panel. Double-click Add/Remove Programs, click the Windows Setup tab, and make sure there is a check mark in the Address Book checkbox. Click OK and Yes. After your computer restarts, launch Outlook Express.

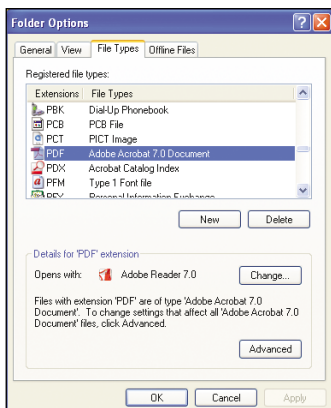
If the error message is caused by having two versions of Outlook Express installed simultaneously, you will need to uninstall and reinstall Outlook Express. You can check for multiple installations by double-clicking My Computer, Local Disk (C:), Program Files, and Outlook Express. If you see more than one version of Outlook Express in that folder, you will need to reinstall Outlook Express. Before you uninstall Outlook Express, make a backup of all of your Outlook Express data so that you don't lose any email messages or other important information.

Q Sometimes I receive PDF (Portable Document Format) files, but I don't know how to open them. Just double-clicking the file doesn't work.

A If you can't open a PDF file, the first thing to do is make sure that you have Adobe Acrobat Reader installed. This program will let you open and view PDF files. To see if Acrobat Reader is installed, double-click My Computer, Local Disk (C:), Program Files, Adobe, Acrobat [version number], and Reader. If the Adobe, Acrobat [version number], or Reader folder is missing, or if you don't see the file AcroRd32.exe in the Reader folder, you'll need to download Adobe Reader from Adobe's Web site.

To download Acrobat Reader, go to www.adobe.com/products and click Acrobat Family under Products By Category. Locate Adobe Reader in the list of Acrobat Family products. Click the Download link to the right of Adobe Reader. Click the Download Adobe Reader button. When prompted, choose to download the file to your hard drive. After the download is complete, locate the file you downloaded and double-click it to start the installer. Follow the on-screen instructions.

If you already have Adobe Reader installed but you can't open a PDF file, you may need to update your software. Go to www.adobe.com/products



If PDF (Portable Document Format) files don't open when you double-click them, make sure PDFs are set to open with Adobe Reader. You'll find a list of file types and file associations on the Folder Types tab of the Folder Options window.

and click Acrobat Family. Locate Adobe Reader and click the Update link on the Adobe Reader line. Follow the on-screen instructions to download and install the update.

Finally, if you have Adobe Reader installed and it is up-to-date, but you still can't open PDF files, you should check your file associations for PDF files. Right-click the Start menu and click Explore. In the resulting window, click the Tools menu and Folder Options. In the Folder Options dialog box, click the File Types tab. Once the Registered File Types list loads, scroll through the list until you find the extension PDF. Click to select PDF. In the Details For 'PDF' Extension section, you should see Adobe Reader next to Opens With. If not, click the Change button. If you see Adobe Reader in the list of Programs, double-click to select it. If you don't see Adobe Reader in the Programs list, click the Browse button. You should find Adobe Reader at C:\PROGRAM FILES\ADOBE\ACROBAT [version number]\READER. Double-click AcroRd32.exe to select it.

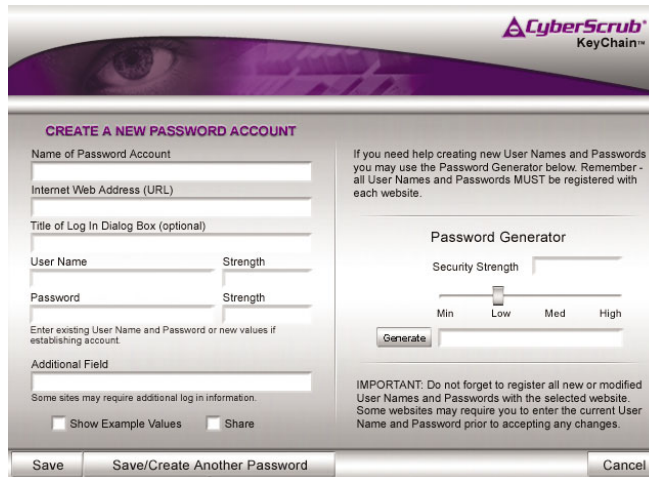
If you didn't see PDF in the list of Registered File Types, click the New button under the Registered File Types list. Type PDF in the File Extension field and click OK. Make sure that PDF is highlighted in the Registered File Types list. Click the Change button and select AcroRd32.exe, as described in the previous paragraph.

Once you have PDF files configured to open with Adobe Reader, click the Apply button and OK. Try double-clicking a PDF file now, and it should open with Adobe Reader. ■

Feature Package Topics

Each *Smart Computing* issue includes tips, reviews, and information about a variety of topics. However, each issue also has a featured group of articles about a selected topic. Below is a list of the Feature Packages from the previous year. As a *Smart Computing* subscriber, you have access to all of our archived articles at www.smartcomputing.com.

| | |
|------------------------|---|
| June 2006: | How To Restore Your PC |
| July 2006: | Repair & Speed Up Your System |
| August 2006: | Fix & Avoid Photo Problems |
| September 2006: | Clean Up Your Computer |
| October 2006: | Uninstall Stubborn Software |
| November 2006: | Easy Answers To Your Printing Questions |
| December 2006: | Make Your PC A Computerized Media Center |
| January 2007: | My PC Won't Start! |
| February 2007: | 7 Critical Things You Should Know About Your Operating System |
| March 2007: | Resolve System Conflicts The Fast & Easy Way |
| April 2007: | Windows Vista: What To Expect From Microsoft's New Operating System |
| May 2007: | Set Up & Maintain A Wireless Network & Keep It Connected |



CyberScrub's KeyChain | MSRP: \$39.95 | www.cyberscrub.com

CyberScrub's KeyChain

One-Click Access To Your Favorite Protected Web Sites

Forget trying to remember those pesky passwords! KeyChain provides simple, one-click access to your favorite Web sites. Single/dual user authentication ensures security. KeyChain also automatically fills out online forms with addresses and credit card details, so on-line shopping is a snap.

- Runs on your host PC or from a small USB drive for true portability
- Leaves no trace on a borrowed computer once you remove the USB drive from that machine

- All data protected with strong encryption
- Easy to use, with award-winning support

Never again will you have to manually enter your information or fill out an online form. KeyChain takes care of that for you as it foils ID theft because there are no keystrokes to capture. All your data is fully synchronized

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- Intrusion prevention and system protection prevent remote attacks and unauthorized program execution
- Detection of missing operating system and application patches
- Detection of weak configurations that leave personal information at risk of being compromised

Blink Personal brings to the consumer an unprecedented level of protection in a single, small-footprint client that requires very little user interaction and setup.

You don't need "bloatware"—you need protection. Safe, reliable, easy-to-use protection. Blink Personal is the perfect replacement for the ineffective and bulky antivirus, personal firewall, Internet security, and total protection suites that consumers have been forced to use until now.



FREE!

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BitDefender Internet Security v10 | MSRP: \$59.95 | www.bitdefender.com

BitDefender Internet Security v10

All-Inclusive Protection Against Internet Threats

BitDefender Internet Security v10 is your all-in-one Internet security suite. With antispam, antivirus, antispyware, and a strong firewall, you can feel safe, secure, and confident.

Proactive Antivirus Protection: BitDefender proprietary technology keeps the operating system safe from unknown viruses by detecting malicious pieces of code for which signatures have not yet been released. Web traffic is filtered in real time, even before reaching your browser.

Simple, Safe Firewall Protection: Filters network traffic and controls the access permission of applications connecting to the Internet. In Stealth

Mode, your computer is “hidden” from malicious software and hackers. The firewall wizard helps you select the most appropriate security profile.

Smart Antispam Technology: Adapts to new spamming techniques as they emerge, and “learns” your preferences, effectively blocking spam while maintaining a very low ratio of false positives. Compatible with all email programs.

Real-Time Antispyware: Monitors and prevents potential spyware threats in real time, before they can damage your system.

Parental Controls: Blocks access to specific Web sites, emails you feel are

inappropriate, or the Internet (for certain periods of time, such as when it’s “homework time”). Prevent applications such as games, chat, file-sharing programs, or others from running.

BitDefender is easy to set up and use, requiring less user interaction and featuring a setup wizard that helps you select the most appropriate settings.

Enjoy safe, simple, effective protection, along with hourly updates and 24/7 technical support.





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Lite-On's LightScribe-Compatible Combo Drive

It's Fast. It's Reliable. It Burns Labels.
What More Could You Want?

Well, there's always price, of course. The LH-20A1H is not only fast, burning data at about 27MBps (that's about 20X, even on 16X discs), it's also affordable. If it's time for a new optical drive, this is the one you want.

- Speed: 8X DVD±R DL, 20X/8X/16X (write/rewrite/read) DVD±RW, 20X/6X/16X DVD-RW, 12X DVD-RAM, 48X/24X/48X CD-RW
- Compatible with all common DVD and CD media types, including double layer
- ABS® system reduces vibration and noise during recording and reading
- SMART-BURN avoids buffer under-run errors, automatically adjusting writing strategy & running OPC to provide the best burning quality
- Supports both 8cm and 12cm discs
- Supports LightScribe label-burning

- Provides a 2MB buffer

If you're looking for a half-height ATAPI internal drive that can zip through almost any job and then burn labels directly on the disc, consider the LH-20A1H.

LITE-ON®

Stupid Writer Tricks

Pride Goeth Before Losing Files

Marty Sems

Send your comments and highly embarrassing computer mistakes to marty@smartcomputing.com

My name is Marty Sems, and I'm an idiot. (Everyone: "Hi, Marty.")

Occasionally, I'm supposed to pen something about computer technology in general. I submit that there's nothing more general to computer users than a little ill-timed stupidity.

We've all made bad computing decisions—opening the wrong attachment, unplugging the wrong power cable, updating the BIOS (Basic Input/Output System with the wrong version—and yet, when we make those decisions, we're usually so sure of what we're doing. We think we have everything under control, so we regard the little warning signs as annoyances that don't apply to us. We click through cautionary messages. We trust that software will do what we *think* it does rather than what it really does.

I've spent the last few weeks troubleshooting and then rebuilding my wife's laptop. No problem, I thought—most of her backups on her external hard drive were recent, and there's a recovery disc for the operating system. (In the interest of full disclosure, *her* bad decision a few weeks ago was to stop me from doing some of her backups because she wanted to use her laptop just then. Hence, she lost a couple months of email and holiday contact updates instead of a couple weeks' worth.)

After reinstalling Windows XP, it was time to restore her backups. Here's where I decided to get a little clever, to my regret.

My wife had several ancient backup ZIP files taking up space on her external drive. My thought was to combine these old backups with her most recent ones so she would have all of her files, old and new, in one place. I used synchronization software to copy the old, forgotten files to her newly restored My Documents folder. I also installed a "clone cleaner" utility to seek out duplicate files. Getting rid of these would reclaim gigabytes of wasted storage space.

To make a long story short, I first should have run a few tests with these powerful utilities so I could understand exactly how to make them do what I needed. Mind you, there wasn't enough hard drive space to decompress all the backup ZIPs at once, so I had to shuffle a lot of big folders back and forth between the laptop and the external backup drive as I went along.

I also was working on this project over lunch hours and evenings, often while keeping one eye on a toddler and fielding endless "Are you done yet?" questions from my wife. Most importantly, I could have copied the entire backup drive to another computer for safekeeping at any time, but I was confident that I knew what I was doing.

In my first clumsy efforts to purge redundant files, I realized that I would have lost a lot of unique photos because they were all labeled IMG_0000, IMG_0001, and so on. (They could co-exist with the same names as long as they were in different folders.) So I corrected this situation and started again. This time, I mishandled the synchronization software in an attempt to make sure that only missing files were added to the new My Documents and that old versions wouldn't replace newer files.

It was only after I finished, and reformatted her external drive to make room for the new backup, that I realized that I'd somehow lost my wife's MP3 music file collection. Erm, the one I hadn't yet copied to our music server. The Recycle Bins were no help, and there had been too much hard drive activity for "undelete" software to recover anything.

It could have been worse. Our family photos and tax files are still there, and the really important stuff is on DVD in a safe deposit box. I'll have to spend a few evenings re-ripping a stack of her music CDs, though. Call it penance.

The moral of the story: Even if you have backups, recovery can be tricky. Go slow, think things through, and familiarize yourself with the software you choose. Oh, and back up your backups before you begin. ■■

Video On The Go

It's Just A Memory Card Away

Blaine Flamig

Send your comments to
blaine@smartcomputing.com



V-Mate Video Memory Card Recorder

\$129.99

SanDisk

(866) 726-3475

www.sandisk.com

A great deal of whether you'll find enough reason to spend \$129 on SanDisk's V-Mate Video Memory Card Recorder hinges on how much you use mobile devices, specifically ones that play video. By mobile devices, I mean PMPs, or portable media devices, such as the iPod video or Sony's PlayStation Portable. I also mean PDAs (personal digital assistants), such as Palm's Treo 650/700p/700w, and cell phones, such as Motorola's RAZR and SLVR, Nokia's N70 and N90, and Sony Ericsson's K800 and W810. SanDisk builds support into the V-Mate for these products and others from

these companies and others.

This integrated support makes using SanDisk's device much easier, but what exactly does the V-Mate Video Memory Card Recorder even do, you ask?

Besides tripping up the tongue a bit, it functions pretty much like a VCR. Instead of recording to video cassettes, though, the V-Mate connects to a DVR, cable box/satellite receiver, VCR, camcorder, or other video source and records your TV shows, DVR recordings, and DVD and home movies to removable flash memory cards.

Odds are if you own a digital camera, you already own a memory card. You'll want a 1GB or larger card, though, to store a decent amount of quality video. SanDisk says the V-Mate can pack about 3.6 hours of medium-quality MPEG-4 video into 1GB. A 4GB SD (Secure Digital) card holds 14.2 hours of medium-quality video. The V-Mate supports varieties of SD, MMC (MultiMedia Card), and Memory Stick cards but oddly not CompactFlash cards, which SanDisk sells. I used SD and microSD cards to record my programs.

Setting up the V-Mate boiled down to plugging it into a power outlet, using two included composite cables to connect it to my TV and DVR (I also used the V-Mate

with my DVD player), and inserting a memory card in the appropriate slot on the front of the V-Mate. SanDisk's users manual walks you through all this, as well as recording programs. This involves using a remote control that SanDisk bundles to navigate an on-screen menu that displays on your TV screen. The menu includes options to preview recordings, start manual recordings, set scheduled recordings, and set daily or weekly scheduled recordings. You can also select Low, Medium, or High recording settings up to a 640- x 480-pixel resolution. My DVR and DVD recordings at Low quality were lackluster, but recordings at Medium were more than adequate for watching on an iPod video.

One negative is that V-Mate records in real time, meaning it's dedicated to the channel it's recording from until the recording is complete or you stop it. Mastering the scheduled recording process eliminates much of this limitation. Configuring the V-Mate's IR (infrared) emitter also helps. This involves plugging an included IR emitter cable into the V-Mate and placing the emitter's small diode near your DVR or cable box/satellite receiver so you can control the device with SanDisk's remote and schedule multiple recordings on multiple channels. This functionality depends, however, on the emitter being able to work with your video device. To check this, I had to find my Scientific Atlanta DVR in the V-Mate's users manual and enter corresponding codes into the on-screen menu.

Besides MPEG-4 video, the V-Mate records in 3GPP and 3GPP2 formats for mobile phone use. There are also specific recording options available for the PSP and nearly two dozen cell phone models. Moving recordings to my iPod video was a bit tricky, as the iPod lacks a card slot. First, I had to transfer recordings from a memory card to my PC and then from my PC to the iPod.

To date, my usage of mobile video has been limited. Anyone who's done much video transcoding on a PC can understand why. Still, the V-Mate does away with much of the pain typically associated with getting video on a mobile device, and I can see my mobile viewing habits picking up, especially if SanDisk continues to improve the V-Mate through firmware updates. ■

Roadmap To Your Roots

RootsMagic Family Atlas Maps Your Genealogy Data

Kylee Dickey

*Send your comments to
kylee@smartcomputing.com*

In the past, it was difficult not only to create maps to accompany my genealogy records, but it was also hard to picture exactly where ancestors lived, because state, county, city, and township lines didn't always remain constant. In fact, ancestors who were born in one county but died in another county may have actually never moved. It was the county line itself that shifted. These types of confusing events only made it more difficult to know where to search for the families of long-lost ancestors. Even if I did locate all of this information, it was difficult to convey the facts to readers in the family history I've been writing.

I just don't have the mapping skills. This is where RootsMagic's Family Atlas can really help. It provides you with all of the tools you need to make quality maps that display family data.

Map Your Family Data

With RootsMagic Family Atlas, you can import your genealogy files directly from RootsMagic, PAF (Personal Ancestry File), FTM (Family Tree Maker), or Legacy Family Tree. If you use a different genealogy program, you can still incorporate your genealogical data into Family Atlas. Just export the data as a GEDCOM (GENealogical Data COMmunications) file from your genealogy software and then import the GEDCOM file into Family Atlas.

Family Atlas includes a built-in database of 3.5 million name places and provides automatic geocoding, which lets you see, for instance, the latitude and longitude of a location in your genealogy data. As you map genealogical data, you can use Family Atlas to track your ancestors' migration from country to country, state to state, county to county, and more. You can zoom in for a closer look at state and

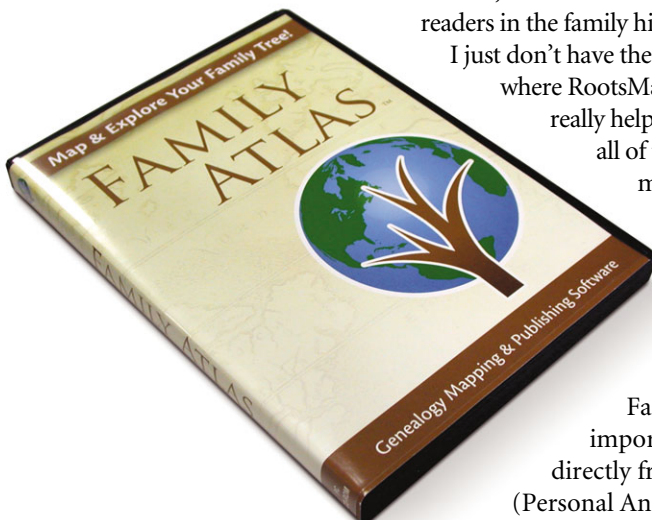
county boundaries. This not only helps you have a better feel for how your family evolved over time, but it also can provide valuable clues to where you may find missing ancestors. Once you can see where your ancestors were and which counties were nearby, you know which census and land records may include records of other family members who lived at the same time.

Family Atlas can even help you identify surrounding locales with its Nearby Places List. There are several women in my family tree for whom I have no information. I used Family Atlas' maps and the Nearby Places List to identify townships near where the family settled. I now hope to find census or land records in one of these nearby locales that will offer clues to these women's backgrounds and ancestry.

I really liked how customizable Family Atlas was. Not only could I change the colors, fonts, and other basic display options for my maps, but I could also add photographs and important notes to my maps. This gave me the freedom to create maps that will be the most useful when I travel to historical societies and that will be the most informative and attractive in the family history I'm writing. You can also choose between a spherical or a flat map. When you're finished, you can print the maps on your own printer, or you can save maps as PDF (Portable Document Format) files to email to someone or to have printed professionally.

Extend Your Roots

RootsMagic Family Atlas is not a program that everyone needs, because its primary function is creating maps. To manage your basic genealogy records, you'll still need a genealogy program, such as RootsMagic, Legacy Family Tree, or PAF. However, for those who are serious about tracing history and learning about their ancestors' migratory patterns, Family Atlas is an indispensable tool. Family Atlas will help you create informative maps for your family history and uncover clues to the origin of missing branches of your family tree. ■



Family Atlas

\$29.95

RootsMagic

(800) 766-8762

(801) 489-3102

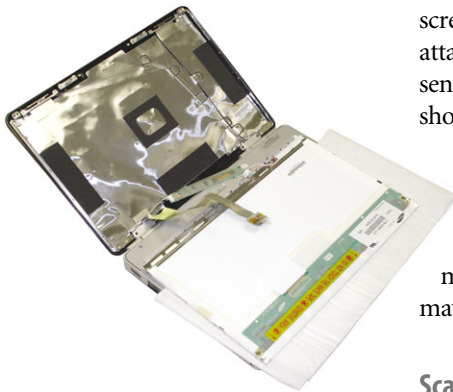
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From time to time, I receive a defective review computer or gadget, but it's a rare situation indeed in which a company will knowingly send me an already-broken system. ScreenTek is no ordinary company.

As far as I can tell, someone took a hammer to the screen of the HP Compaq Presario V2000 notebook that recently landed on my desk, courtesy of ScreenTek. A small piece of the screen is missing and spider cracks extend from the impact site. Most of the screen can't display any images at all, and the rest of the screen has miserable image quality: The screen is a total loss.

That's where ScreenTek comes in. The company offers thousands of notebook screen kits to users who dropped, bumped, or attacked their fragile notebooks. You could send your damaged notebook to a repair shop or to the manufacturer, of course, but

ScreenTek tells me that you'll save money and time by using one of its screen kits to replace your notebook's screen.

ScreenTek also tells me that the replacement process is easy and fast (though it may void your notebook's warranty).

Scalpel, Please

I used ScreenTek's Laptop LCD Removal Instructions, which directed me to rustle up a Philips-head screwdriver and a knife. I recommend that you add a pair of tweezers to the list, as the teeny-tiny screws are hard to reach if they drop into the notebook screen housing.

Removing the bezel turned out to be the toughest part of the process. I didn't have any trouble digging out the rubber screw covers or removing the screws that secure the bezel, but I found it a little difficult to pry the bezel off the screen housing. I was afraid I'd break the bezel, but it turned out to be pretty tough.

Once I snapped the bezel off its clips, I followed the instructions to remove the screen from its housing. At that point, I

detached the two cables that connect the screen to the notebook and then lifted it out completely.

Some Assembly Required

Having completed the uninstallation process, I was halfway through the procedure and surrounded by screws, rubber caps, tools, and other notebook pieces. Needless to say, I was pretty nervous when I discovered that I had reached the end of ScreenTek's instructions, which then suggested that I simply needed to complete the steps in reverse order to put everything back together.

The instructions, which include plenty of color pictures, held my hand through each step of the uninstallation process. If ScreenTek provided similar instructions for replacing the screen, it would have had one of the best manuals I've seen. I was able to work my way through the installation without much trouble, but I can see how novice users would prefer to have instructions that walk them all the way through the process, from start to finish, even if the instructions are nearly redundant. Still, this is a relatively minor complaint. I installed the new screen in 21 minutes, four more minutes than I spent removing the broken screen.

Good As New

As soon as I attached the last rubber screw cap, I fired up the notebook and watched Windows load on a brand new screen. It worked flawlessly and looked great. Overall, I really like ScreenTek's kits: They really will save money and time. Whereas I would have paid \$295 for the screen (plus \$15 for Federal Express shipping), HP told me that it could replace the screen within three to five business days for \$698.

You can order a screen from ScreenTek based on your notebook's model number, or you can use the screen's model number (the number is on the back of the screen). ScreenTek tells me that if you call in your order, its sales staff can ask you additional questions to make sure you order the correct screen. If you order the wrong one, ScreenTek will send you the correct unit before you even ship the wrong screen back. I like that kind of service. ■

Go Paperless

Affordable OCR Software

You hear talk of the new paperless world, but offices and most everywhere else still generate reams and reams of paper documents. With OCR (optical character recognition) software and a scanner, you can convert that paper into word processing documents and other editable formats.

A variety of professional-grade OCR programs exist, such as Nuance's OmniPage (\$149.99), ABBYY's FineReader Pro (\$399.99), and I.R.I.S.' Readiris Pro (\$129.99), among others. But home users needn't feel priced out of the OCR market—there are also some lower-cost and even free options available.

We took a look at some of the more popular budget programs and ran the same documents through each application. The test pages included plain text, as well as a flyer that featured graphics, columns, and text formatting. Our primary focus was, of course, accuracy—scanning and converting doesn't really save you much time if the resulting file is rife with error. We also took a look at how intuitive the interface was, as well as support for PDF (Portable Document Format) use.



Scan2Text 2

Scan2Text operates from within Microsoft Word rather than in its own window. While this initially seemed a downside, it quickly became apparent it didn't affect the application's usefulness.

Scan2Text is pretty simple. You can scan a paper document or import a PDF or image file. The result is automatically dumped into Word, where it can be edited, saved, or printed. There are no batch functions or other advanced features, but there's also no new interface to learn or separate program to open. It's right there, in the word processing

program you would probably use to fix inevitable OCR errors anyway.

It's not immediately obvious, but the Scan2Text install routine adds four new commands under Word's File menu—one to control the program's settings and three for OCR. Once you find them, it's easy to get the hang of using them. The program runs the OmniPage OCR engine, which means OCR accuracy should rival some of the more full-featured applications.

The application's newest version includes the Scan2Text From Paper Preview command, which allows you to preview the scanned image and select specific parts of the page to convert. When you're trying to capture images or text from a scan that includes some of each, the Paper Preview option can save you some time. If you get hung up, you may find relief with the Help files, or you can email support for more assistance.

Before scanning or opening a scanned file, you'll need to set up the Text Settings. It's here that you tell it whether to keep the original formatting or to simplify the format. We went with the original formatting and found an impressive level of accuracy. While the tab sets of our test page didn't come through completely lined up, the justification was correct, the graphics looked great, and most of the bold formatting was captured intact. Scan2Text even converted the imbedded hyperlinks properly. All these results combined put Scan2Text's accuracy head and shoulders above the others.

TextBridge Pro 11

From the makers of the professional OCR favorite, OmniPage, TextBridge Pro has one of the more recognizable names in this roundup.

The TextBridge Pro interface is relatively easy to figure out: Steps in the OCR process (loading or scanning a file, describing the existing formatting, and specifying output) are laid out across the top of the screen. Users choose among a few options at each step, click a Start button, and the program does its thing. A built-in text editor lets you correct errors from within the program. Its Help files are also impressive and include tips that give you more insight into what the program has to offer. Other technical support isn't

With OCR software and a scanner, you can convert that paper into word processing documents and other editable formats.



quite as impressive: End users receive just one phone incident at no charge; further phone support is \$19.95 per incident.

TextBridge Pro can also operate from within other programs. A Direct OCR setting lets you add basic TextBridge Pro functionality to a variety of supported programs, such as Microsoft Word. You can then acquire text from a scanner or file and OCR it directly into the other program.

A major TextBridge Pro flaw is the inability to read from or write to PDF files. It might not matter in some situations, but PDF is increasingly the default format for sharing documents that are not already in some word processing format. In other words, unless you are scanning it yourself, any document you want to OCR is likely going to be in PDF.

TextBridge Pro will read most image file formats, offers spreadsheet and table conversion, and works in color. It also comes with Schedule OCR, a companion program that will batch process all image files in a particular folder or all of the documents on an autofeed scanner at a specified time. When going the scanner route, the program can even recognize a blank page in the autofeed stack as a signal to begin a new file. If you have a big job that you'd like to run overnight, autofeed is the way to go—assuming you don't need PDF.

TextBridge Pro has won several industry awards, but it won't be taking home our Smart Choice award. Despite a professional-looking interface and impressive tools, TextBridge Pro just couldn't compete with Scan2Text for accuracy on our test docs. It didn't retain original page formatting very well, misread more than 15 words in a one-page flyer, and mucked up all the graphics. We found the accuracy results a bit startling, given its pedigree.

Presto! OCR Pro 4

Like most of the OCR applications we looked at, Presto! OCR is not difficult to use. Buttons across the top of the screen lay out the steps, from scanning to saving the output as a file. Drop-down menus on each main function button lead to additional choices. A wizard can also guide users through the process. Its thorough Help files also offer assistance, and free tech support is available to registered users.

Presto! OCR includes support for PDFs, a must-have in today's electronic world. Presto! can batch work for capturing multiple pages, and it can also send OCR results directly to other programs, such as Microsoft Word and WordPerfect.

As with TextBridge Pro, Presto! includes a built-in text editor to correct OCR errors

Software Information

| | Price | Company | Contact Information | URL |
|-------------------|---------|-----------------|---------------------------|--|
| Scan2Text 2 | \$89 | Claro Software | +44 (0) 870 760 5877 (UK) | www.clarosoftware.com |
| TextBridge Pro 11 | \$79.99 | Nuance | (781) 565-5000 | www.nuance.com |
| Presto! OCR Pro 4 | \$99.95 | NewSoft | (408) 503-1200 | www.newsoftinc.com |
| SimpleOCR 3.1 | Free | Simple Software | N/A | www.simpleocr.com |

Scorecard

| | Features | Ease Of Use | Installation | Support/Documents | Price | Overall Score |
|-------------------|----------|-------------|--------------|-------------------|-------|---------------|
| Scan2Text 2 | 4.5 | 5 | 5 | 4 | 4 | 4.5 |
| TextBridge Pro 11 | 3.5 | 3.5 | 4 | 3.5 | 4 | 3.7 |
| Presto! OCR Pro 4 | 4 | 4 | 4 | 4.5 | 4 | 4.1 |
| SimpleOCR 3.1 | 2 | 4 | 4 | 1 | 5 | 3.2 |

Generally, we were impressed with the OCR quality of these budget programs.



before exporting the file to another format. You can also select text blocks manually when the document you want to convert has multiple graphics, tables, columns, or other challenges—this helps the application keep text together that belongs together. A “cleaning” button attempts to reduce noisy black dots from your scans before the OCR kicks in.

Presto! claims to be the most accurate OCR program thanks to special Fountain Image Transformation technology. It sounds a bit like Corinthian leather, and though our test pages were acceptable, they were not quite up to par with our top performer, Scan2Text. Results were, however, significantly better than TextBridge Pro, the application most like Presto! in the interface department. If you’re looking for something with a few more features than Scan2Text, Presto! OCR Pro 4 is worth considering.

BUYING TIPS

Consider carefully what you need your OCR software to do for you—don’t just go for the flashiest packaging. If plain-text word processing documents will be the bulk of your scanning and formatting isn’t an issue, you might do best with a basic freeware application. If volume is consideration, an OCR app that can handle batch conversion is a must.

Make sure the OCR software you’re thinking of buying can read and write to the file format you’ll need to use. PDF (Portable Document Format) is a popular choice for electronic documents. If you’re scanning directly from paper and saving to a word processor such as Microsoft Word, however, PDF is not necessary.

SimpleOCR 3.1

The only completely free OCR application we could find, SimpleOCR is just that: simple. And it proves the age-old adage, “You get what you pay for.” It wasn’t designed to do intense conversions. It doesn’t convert graphics. It only works with a handful of common fonts and has no interest or capability in rich text formatting. If what you need to convert is basically black text on a white sheet of paper, SimpleOCR can probably handle it.

Installation is a no-brainer, and it loads a 14-day license for a handwriting converter, too. Start SimpleOCR, and you’ll be prompted to view a brief demo before you begin. The demo does a good job of showing how to utilize the freeware’s minimal features, which is a good thing, because the Help files don’t actually provide any assistance—they’re all tied to the SoftWriting Trial.

SimpleOCR’s interface itself is pretty basic, and it just feels like freeware. Its best feature, and one of its only features, is the split screen. The top half shows the scanned text; the bottom half shows the converted text. It highlights in the bottom half the words it thinks may be wrong. You tab through them, with SimpleOCR offering correction options for each possible error—which is more than some of the fee-based OCR applications do. You can accept the highlighted item as is, choose a correction, or skip it to decide later. It’s great that SimpleOCR points out the possible problems, but if it were a stronger OCR application, there wouldn’t be so many errors to tab through in the first place.

Accuracy Counts

The next time you need to take some of the paper flying around your desk and turn it into an editable document, give one of these OCR applications a try. Generally, we were impressed with the OCR quality of these budget programs. Most provided decent results that would save enormous time over retyping something from scratch. Scan2Text 2, the most accurate of the bunch in our tests, rendered a combination of text and graphics into Word almost exactly as it had looked on paper, earning it this month’s Smart Choice designation. ■

BY ANNE STEYER PHELPS



**June 2007
Smart Choice**

Scan2Text 2

A Smooth Ride?

OpenRide

Free
AOL
(800) 827-6364
www.aol.com/openride

If you think of AOL only as a subscription-based Internet service provider, it's time to have another look. In fall 2006, the company announced that its core services, including email, instant messaging, virus protection, and security features, would henceforth be free. (You still have to pay for Internet access, but you do not have to buy it from AOL.)

At the same time, the company debuted a browser/multimedia hybrid, OpenRide, which anyone could download at no charge. OpenRide is very different from other browsers, mainly because it tries to be all things to all people. The program is a multitasking maverick that unites a Web browser, email client, buddy list, and multimedia center into a single interface.

When you open the program, you'll see a four-paned display. If you are online, the browser window will be maximized and opened to your home page—AOL's portal by default. Above the browser window is the email client, where you can send and receive both AOL mail and mail from other email accounts. You must sign in to AOL before you can retrieve anything, but OpenRide can do this automatically. Furthermore, OpenRide automates setup of accounts you have with major providers. For lesser-known service providers, you'll need to provide the details for manual configuration.

To the right of the email client is AOL People, the instant message interface. It contains both your buddy list and your address book and lets you chat with AIM (AOL Instant Message) users, but not with users of any other IM system.

The final pane, beneath AOL People, is the Media Center. Riding on the back of Windows Media 10, the Media Center lets you play audio and video files, listen to an array of XM Radio stations, view digital images stored on your PC, or search your computer for files. The search interface is extremely basic.

However, the utility is fast, and it offers a one-click support for sending retrieved files to others via email or IM.

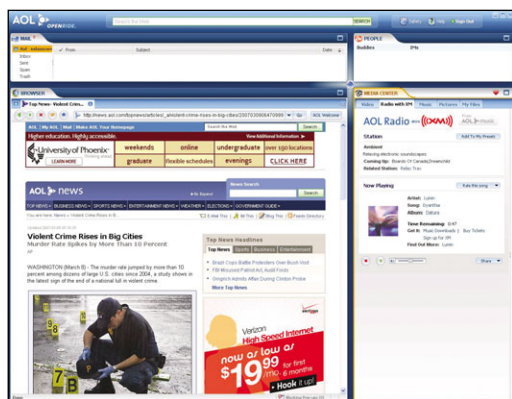
OpenRide manages the four panes with something called the Dynasizer. It automatically maximizes any pane you select (and reduces the size of the others). It also has a round blue button, always located at the apex of the four panes, that lets you dynamically resize the panes to meet your needs.

All of OpenRide's components are truly integrated, which means you can transfer data from one area to another (for instance, converting an instant message to a text file or sending a video file via email) with a few clicks of the mouse. The whole setup (including the XM Radio stations) is ad-supported, but the ads are not overly intrusive. More importantly for some, OpenRide is optimized for broadband and works best on a fast system with a good video card. Using it with anything less will be an exercise in frustration.

Overall, OpenRide is a pretty smooth operator, with a snazzy interface that puts a lot of functionality at your fingertips. However, the settings control panel is a little hard to find, being buried behind a tiny Help button. Furthermore, XM Radio tends to pause momentarily when you move to another operation. Otherwise, the program transitioned from one feature to the next with agility. For those of you upgrading to Windows Vista, OpenRide is compatible.

However, we should warn you of issues that might give you pause. First, you must sign up for an AOL account to use OpenRide, and the company asks for a lot of personal information (AOL states it does not share). Second, the installation includes other components: AOL Desktop Search, which indexes the files on your hard drive for easy retrieval; AOL Toolbar, an Internet Explorer add-on that affords quick access to AOL Search, AOL Mail, and other AOL features; and AOL Site Security, a built-in security utility. None of these should cause problems on a reasonably clean, up-to-date system, but we wanted you to know they would be there. ■

BY JENNIFER FARWELL



Scorecard

Performance 4
Ease Of Use 4
Installation 4
Documentation 3
Price 5
Overall Score 4/5

Build A Partition

Partition Commander Professional 10

\$49.95
VCOM
(800) 325-0834
sales@v-com.com
www.v-com.com

Partition Commander enjoys a growing reputation as a top-notch drive partitioning utility. With it, you can carve new partitions from an existing drive already filled with data, merge multiple partitions into a single one, or reapportion file space among existing partitions. Partition Commander Professional 10 includes utilities to help restore unbootable Windows drives, undelete partitions, change partitions from primary to logical and back, and defragment hard drives.

Most of these are operations you won't (and shouldn't) perform often. In certain situations, Partition Commander can be a lifesaver (and an excellent value). The program also offers a copy feature that lets you move the data and system files from one drive to another quickly and painlessly.

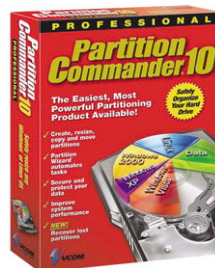
Partition Commander is easy to use, with a clean, intuitive interface. When you open the program, you see basic and advanced

operations listed in the left pane, physical drives at the bottom, and detailed drive and partition information in a tabbed display at the top right. The program even uses color-coding to help you identify which partitions are which. For novice PC users, a handy Partition Wizard can practically automate the various processes.

Partition Commander supports some features for partitions running Linux and Vista (we did not test it with either OS). The program can only be installed on a Windows 98/Me/2000/XP workstation (not a server), but it can run some operations from the CD.

Partition Commander and its ilk enable you to perform tasks not native to drives running Windows OSes. The process is not always perfect, so before you proceed, make sure you have up-to-date backups and are prepared to reinstall your system if problems occur. ■

BY JENNIFER FARWELL



Scorecard

Performance 5
Ease Of Use 5
Installation 5
Documentation 4
Price 5
Overall Score 4.8/5

Norton Confidential 2007

\$49.99
Symantec
(408) 517-8000
www.symantec.com

Security

Keep It Confidential

Online privacy, password protection, and other security issues are becoming serious concerns. Consequently, many software developers are releasing solutions designed to protect you online. One of these is Norton Confidential, a program that is also included as part of Norton Internet Security 2007.

Norton Confidential examines Web sites to see if their security certificates are valid and they are free of malicious code and other bugbears. It also stores and manages your passwords. Confidential installs a large toolbar that proclaims the safety (or lack thereof) of sites you visit. It also asks if you want to save passwords you enter at sites and then supplies them upon your return. Norton Confidential is easy to use, with a simple, straightforward interface. It lacks a setup wizard, which would be nice, but after setup, it hums along without much user involvement.

In Internet Explorer 6, Confidential did a good job of blocking fraudulent sites, although it slowed down browsing noticeably. It did a decent job of asking for and providing passwords, but its track record wasn't 100%. (For example, it performed poorly with sites requiring two-step identification.) Additionally, it doesn't support Firefox, and users report it doesn't play nice with Internet Explorer 7 or AOL. Symantec reports it is compatible with Windows Vista, but we didn't test it with the new OS. Finally, we object to Symantec's support policy, which is to charge for all phone-based support.

If you are already a Norton user and you are upgrading to Norton Internet Security 2007, you may be glad of Confidential's presence. Otherwise, the tools included in Internet Explorer 7, plus free utilities such as McAfee's Site Advisor and the free version of AI Roboform may serve you just as well. ■

BY JENNIFER FARWELL



Scorecard

Performance 4
Ease Of Use 4
Installation 3
Documentation 3
Price 3
Overall Score 3.4/5

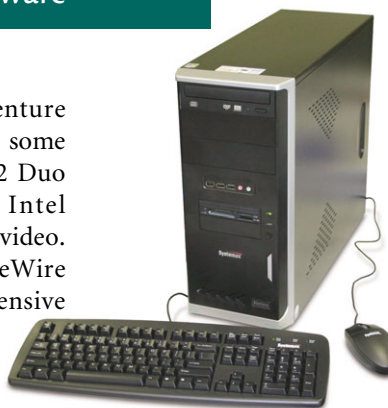
Staff Picks

Our Experts Pick The Best Hardware

Systemax Venture DH43IV

You won't find many frills in Systemax's new Venture DH43IV at its base price, but this desktop PC has some quality components, including a 1.8GHz Intel Core 2 Duo E4300 2M processor, 1GB of memory, and an Intel DG965WH motherboard, which provides integrated video. The motherboard also offers USB 2.0 ports and FireWire ports. You don't often see FireWire ports on inexpensive PCs, so I consider the system's two FireWire ports (one at the front of the PC, another at the back) a big plus.

I like the size of this system's hard drive. At 160GB, the included Western Digital WD1600JS offers all the storage you'll need for your photos, emails, documents, and other data. The DH43IV sports Vista Premium, which has plenty of fun visual effects and media features. The dual-layer DVD±RW and media card reader at the front of the system ensure that you'll be able to transfer your data to other devices at a moment's notice.



Venture DH43IV
\$799.99
Systemax
(800) 262-6622
www.systemaxpc.com

Although I like this system in its standard configuration (it's so quiet you won't hear it unless you lean near it), I'm glad to see that Systemax lets customers configure it to meet their needs before they buy it. When you use the online customization option, you can add, for instance, additional hard drives, a monitor, and speakers (for a price, of course). Complete with a three-year warranty, the Venture DH43IV makes a solid family PC. ■

BY JOSHUA GULICK

COMPUTERS

| | | |
|--|--|---|
| Desktops <= \$1,500 Venture DH43I \$799.99 | Josh Systemax www.systemaxpc.com | <i>This family PC, which includes a basic keyboard and mouse, has enough power to handle day-to-day computing. It also offers plenty of USB 2.0 and FireWire ports.</i> |
| Desktops > \$1,500 Force Recon QXN \$2,449 | Josh Vigor Gaming www.vigorgaming.com | <i>If you're looking for a gaming system that will make your grandkids' eyes pop, this PC will do the trick. It has style and power.</i> |
| Notebooks <= \$1,500 ThinkPad X60 Ultraportable with Bluetooth \$1,408 (as configured) | Jennifer Lenovo www.lenovo.com | <i>I bumped up the RAM in this Vista-running notebook to 1GB in order to get a well-rounded system.</i> |
| Notebooks > \$1,500 dv9000t \$2,198.97 (as configured) | Jennifer HP www.hp.com | <i>I used HP's Recommended Configuration on the dv9000t to get a laptop with a ton of extras, including an Intel Core 2 Duo T7200, 512MB NVIDIA GeForce Go 7600, 2GB of DDR2 RAM, and more.</i> |

HANDHELDS

| | | |
|---|--|---|
| Handhelds & PDAs (personal digital assistants) iPAQ hx2495 Pocket PC \$399.99 | Jennifer HP www.hp.com | <i>I like that this tried-and-true handheld has Bluetooth, Wi-Fi, and SD (Secure Digital) and CF (Compact Flash) card slots, along with adequate internal memory.</i> |
|---|--|---|

INPUT DEVICES

| | | |
|--|---|--|
| Keyboards Wireless Laser Desktop 4000 \$79.95 | Blaine Microsoft www.microsoft.com | <i>For those on the cutting edge, this new keyboard-laser mouse combo includes a new Comfort Curve design and integrated buttons for immediate access to Windows Vista and Windows Live functions.</i> |
| Mice/Trackballs/Trackpads Logitech VX Revolution \$79.99 | Blaine Logitech www.logitech.com | <i>Although big for a notebook mouse, the VX is precise; has a great design; and offers zoom, search, and document-flipping ability.</i> |

MONITORS/DISPLAYS

| | | |
|--|---|---|
| CRTs (cathode-ray tubes) AS700-BK \$119.99 | Andrew NEC www.necdisplay.com | <i>If you've got the desk space and prefer the superior color reproduction of CRTs, this model pleases without emptying your pockets.</i> |
| LCDs <= 19 inches \$189.99 740N-BK | Andrew Samsung www.samsung.com | <i>From what I've seen of this display, it's an affordable and vivid 17-inch LCD worth looking into.</i> |
| LCDs > 19 inches MW221u \$399.99 | Andrew Asus www.asus.com | <i>This is a solid 22-inch display with loads of built-in features, a fast response time, and nary a dead pixel.</i> |

SanDisk V-Mate Video Memory Card Recorder

SanDisk's V-Mate is like using a VCR, except rather than recording to video cassettes, the device records to removable memory cards. Say you use the V-Mate to record "Frontline," for example. Just pop the card in a compatible mobile device (smartphone, notebook PC, iPod video, etc.), and you're watching on the go. The V-Mate supports SD (Secure Digital), MMC (MultiMediaCard), and Memory Stick card varieties, including high-capacity versions, but oddly not CompactFlash. Video records to MPEG-4 (Movie Picture Experts Group-4), 3GP,



V-Mate Video Memory Card Recorder

\$129.99

SanDisk

(866) 726-3475

www.sandisk.com

or 3G2 formats (up to 640 x 480 resolution) in NTSC (National Television Standards Committee)

tee) or PAL (Phase Alternate Line) TV formats, so you can watch home and abroad. Easy to set up and use, the V-Mate is a viable option for watching programming on the go without needing a PC to do the job. ■

BY BLAINE A. FLAMIG

PRINTERS

| | | |
|--|--------------------------------------|---|
| Inkjet <= \$150 Stylus Photo R260 \$99.99 | Kylee Epson www.epson.com | <i>This printer uses Epson's new Claria ink, which Epson says will produce colors that remain bright and true, even over time. The printer also features borderless printing and is compatible with printable CDs and DVDs.</i> |
| Inkjet > \$150 PIXMA iP6700D \$179.99 | Kylee Canon www.usa.canon.com | <i>With its 3.5-inch color LCD, you can preview your photos before you print. In addition, the iP6700D supports double-sided printing.</i> |
| Laser <= \$200 ML-2010 About \$120 | Nathan Samsung www.samsung.com | <i>With the ability to churn out 22ppm (pages per minute), this monochrome laser features speedy printing at a low cost.</i> |
| Laser > \$200 to \$500 HL-5280DW \$349.99 | Nathan Brother www.brother.com | <i>Brother's HL-5280DW offers the convenience of a built-in wireless network interface and automatic duplex printing. This monochrome laser printer produces up to 30ppm and duplexes at up to 12ppm.</i> |
| Laser > \$500 E450dn \$599 | Nathan Lexmark www.lexmark.com | <i>This monochrome laser quickly handles complex print jobs with an automatic duplex feature, 64MB of memory, and a print speed of 35ppm. Additionally, it features a compact design for space-sensitive areas.</i> |
| MFDs (multifunction devices) Stylus Photo RX580 \$179.99 | Kylee Epson www.epson.com | <i>This MFD is easy to set up, easy to use with its 2.5-inch LCD, and features Epson's new Claria inks that are designed to keep prints color-rich even as time passes.</i> |

STORAGE

| | | |
|--|--|--|
| Flash Memory & Portable Flash Voyager 16GB \$299 | Marty Corsair www.corsairmemory.com | <i>The Flash Voyager USB drive boasts an astounding 16GB, plus 256-bit AES (Advanced Encryption Standard) and a 10-year warranty.</i> |
| CD & DVD Drives LH-20A1H About \$40 | Marty Lite-On us.liteonit.com | <i>20X DVD±R writing is the highlight of this LightScribe-capable burner.</i> |
| Hard Drives Raptor WD1500ADFD 150GB \$249.99 | Marty Western Digital www.westerndigital.com | <i>Here's a returning champ. Put your operating system and applications on one of these and give your PC a noticeable speed boost. You can always use a cheaper and larger 7,200rpm drive to store your personal data.</i> |

VIDEO/PHOTO

| | | |
|---|--|--|
| Digital Camcorders < \$500 ZR800 \$279 | Nathan Canon www.usa.canon.com | <i>This digital camcorder includes features found on more expensive models, such as a widescreen mode and smooth zoom control. Additionally, the 35X optical zoom allows you to get close to the action, even from a distance.</i> |
| Digital Camcorders > \$500 GZ-MG505 \$1,299.99 | Nathan JVC www.jvc.com | <i>With three CCDs (charged coupled devices) and a 3D Noise Reduction feature, the GZ-MG505 offers exceptional color reproduction. This digital camcorder also captures 5MP (megapixel) still shots.</i> |
| Digital Still Cameras - Point & Shoot PowerShot A640 \$399 | Kylee Canon www.usa.canon.com | <i>This 10MP camera features 4X optical zoom and a 2.5-inch LCD. This is an ideal camera for those who prefer to use AA batteries.</i> |
| Digital Still Cameras - Adv./Prosumer D40 D-SLR About \$600 | Kylee Nikon www.nikon.com | <i>The 6.1MP D40 mixes friendly operating controls with shooting abilities that go beyond point-and-shoot.</i> |
| Graphics Cards <= \$150 Radeon X1900GT \$129.99 | Andrew Sapphire www.sapphiretech.com/us/ | <i>This card is one of the best mainstream graphics cards you can buy. At least until the R600-based cards come out.</i> |
| Graphics Cards > \$150 GeForce 8800 GTX OC 768MB Water Cooled Edition \$899 | Andrew BFG www.bfgtech.com | <i>This graphics card blazed through everything I threw at it—faster than any single card I've tested. But all that performance will cost you.</i> |

Windows XP Briefcase

These days, it's common to regularly use more than one computer. You may have a computer at home and use another at work. Or, you may alternate between a desktop and a laptop.

Using multiple computers can be convenient, but it can also cause some problems, especially when it comes to working with documents or other personal files. Keeping these files current on two computers can quickly become a hassle, and in the process of transferring them back and forth between two systems, it's easy to become confused and inadvertently delete or overwrite the most up-to-date version.

Fortunately, it just so happens that Windows XP has a feature that can help. It's a built-in utility called Briefcase, and it simplifies the process of keeping your files synchronized across two systems. The Briefcase is where you can put files before transferring them to another system for use. The Briefcase remembers the identifying characteristics of the files it contains—things such as the original location, date, and time. When you return the files to your main computer, the Briefcase compares its versions of the files with the originals and lets you update all of your changed files with a couple of mouse clicks.

Get Started

You can use the Briefcase feature through a shared folder on a pair of PCs that are connected directly via a network or direct cable connection. Another option is to use removable

media such as an external hard drive or flash memory device to transport your Briefcase between two systems.

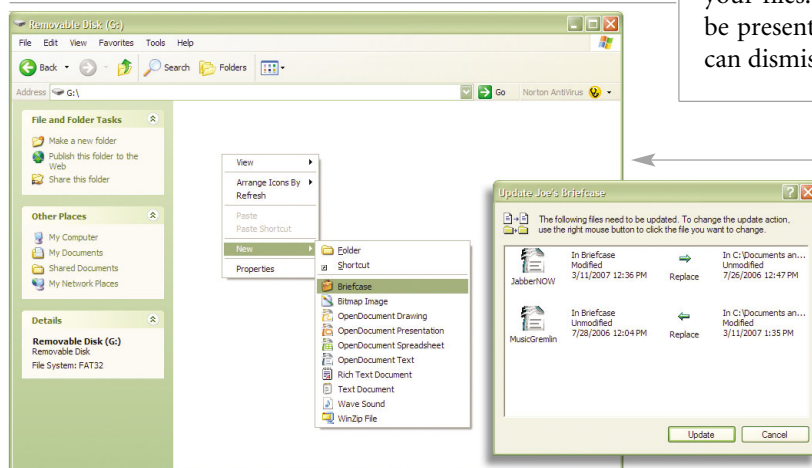
Using Briefcase with removable storage can be especially convenient because it doesn't require your two systems to be directly linked or even in the same place (for example, as in the work/home scenario mentioned above). Because they're small and easily portable, inexpensive, and available in relatively large storage capacities, flash memory devices are a particularly good choice. Whatever storage device you choose, though, be sure it's large enough for your Briefcase to fit.

To create a new Briefcase, make sure your removable storage device is connected to your main computer (in other words, the one you use most often and where you normally store your data). Open the device in My Computer, right-click an empty area of the device window, select **New**, and then choose **Briefcase**. When you create a Briefcase, it will be generically labeled **New Briefcase**, but you can change that to something more meaningful by right-clicking the Briefcase icon and selecting **Rename**.

The right-click and then **New** option will work not only within **My Computer** but also within **Windows Explorer** or even right on the **Windows Desktop**. Yet another way to create a new Briefcase on your Desktop is to type **syncapp** into the **Run** box from the **Start** menu. (It will be labeled "My" rather than "New" Briefcase but will work exactly the same way.)

Put Files In Your Briefcase

To fill your new Briefcase, find a folder that contains files you want to use on another computer, highlight the files you want, and drag and drop them onto the Briefcase icon. (A Briefcase can contain files from multiple locations around your system.) Adding files to a Briefcase doesn't move or delete the originals—rather, it creates new copies of them within the Briefcase. If you prefer, you can also double-click the Briefcase icon to open it before adding your files. (The first time you open a new Briefcase, you'll be presented with a **Welcome** message window, which you can dismiss by clicking **Finish**.)



Create a Briefcase from within Windows Explorer, a folder in My Computer, or on the Desktop. The best place to set one up is on removable media.

When you update one or more Briefcase files, a confirmation window will show which files are to be updated and in which direction.

When you open a Briefcase, you'll see a list of the files it contains and the size of each, along with columns labeled Sync Copy In and Status. The Sync Copy In heading simply refers to the original location of each file—this is what the Briefcase version of the file is linked back to. The Status column in turn indicates whether a particular file is current. When you first set up the Briefcase, all of the file entries should read Up-To-Date.

Carrying & Using Your Briefcase

When your Briefcase contains all the files you need, you're ready to move it to another computer. Assuming you created it on removable storage, all you need to do is connect the storage device to your other system. If you happened to set it up on your original system's hard drive, don't forget to transfer it to the removable device. Whenever transferring a Briefcase file from a system, it's best to *move* it as opposed to *copying* it. Otherwise, you'll wind up with multiple copies of the same Briefcase, which could cause some confusion later.

Once your Briefcase is on another computer, you can use any of the files within it by accessing them directly from the Briefcase. There's no need to copy the Briefcase to the new system's hard drive first—you can work directly from the removable drive, and Briefcase files can be opened and closed just as if they were normal Windows files. Technically speaking, Briefcase files are normal files, and the Briefcase itself is for all intents and purposes a folder, albeit one with special characteristics. After you're finished working with the files in your Briefcase, make sure you've saved and closed them all.

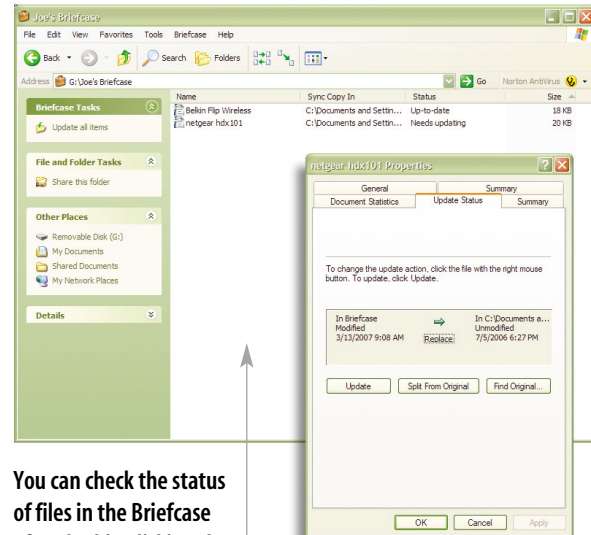
Update Your Briefcase

At this point, one or more of the files in your Briefcase have changed from their original versions. In order to synchronize the originals with the newer Briefcase versions, it's time to update the Briefcase on your main computer.

Once you have the Briefcase back on your main system, double-click to open it. You'll see the same list of files you did back when you first created the Briefcase, only this time the Status column will read Needs Updating for each of your files.

You'll want to update all the files in the Briefcase, which you can do by choosing Update All from the Briefcase menu or clicking Update All Items under Briefcase Tasks, which is located just to the left of the list of files. (You can also update a Briefcase without opening it by right-clicking the icon and selecting Update All.) If you'd rather just update a single file or a group of files, you can use the mouse to highlight the file(s) you want, then right-click them and choose Update.

No matter how many files are involved, whenever you update your Briefcase, a confirmation window appears that shows a comparison list of each file that's changed—the Briefcase version is shown on the left; the original version is on the right. The Briefcase can update files in both directions,



You can check the status of files in the Briefcase after double-clicking the Briefcase icon.

To split a Briefcase file from its original, highlight the Properties of the file. If the original location of a file changes, the link with its briefcase counterpart will automatically be broken.

so if, based on the file's date and time, the Briefcase's version of a given file is more recent, it will overwrite the original version. If, on the other hand, the original version of a file is newer, that will overwrite the one in the Briefcase. The confirmation window will use an arrow to indicate the update direction for each file. When you're satisfied that it's correct, just click the Update button to synchronize all the files.

There may be times when you want to retain the older version of a file. To do this, right-click the file in question within the Briefcase confirmation window and you'll be able to change the update direction or skip updating that file entirely.

Whenever you use the Briefcase to synchronize files, it's important to make sure they remain in their original location on your main computer. If you move an original file that's being tracked by Briefcase—even temporarily—the link will be broken and the Briefcase version becomes an orphan, which means it will no longer be synchronized with the version outside the Briefcase. If you ever want to intentionally break the link of a Briefcase file to prevent future updates, you can do so by right-clicking the file within Briefcase and selecting Properties. Click the Update Status tab and then the Split From Original button.

Although the Briefcase feature has been around since way back in Windows 95, because it's pretty much buried in the operating system, it's not very well-known. Now that you know Briefcase exists and how to use it, keeping your files current across two systems will be less confusing and less prone to errors. ■

BY JOSEPH MORAN

Customize Your Windows XP Startup Screens

The first 10 seconds or so after you turn on your computer are, quite frankly, boring. If you've seen that Windows logo once, you've seen it a thousand times. About the only time the process is interesting is when the machine fails to boot properly, and that's the kind of excitement you can do without.

But booting your computer can be interesting in a good way. You can personalize the splash, boot, and logon screens to display eye-catching images, fun quotes, or even rid the screen of any graphics whatsoever. We'll show you how to do it yourself and introduce you to some fun free-ware applications.

(NOTE: You've probably seen the terms "splash screen" and "boot screen" used interchangeably because there is some overlap. For this article, we'll refer to the boot screen as the screen you see when the computer boots, or in this case, the Windows XP logo. We'll refer to the splash screen as the screen you see when any application loads.)

The Do-It-Yourself Approach

If you're comfortable playing around with your system's settings, you can do quite a bit to customize your PC's startup screens. The most basic change, at least in terms of output, is to get rid of the boot screen altogether. This won't make your machine load any faster, but it will keep you from having to look at the manufacturer logo and Windows progress bar. (If something does go wrong during the boot process, however, keep in mind it will be much more difficult to diagnose a problem without the visual cues.)

The key to removing the boot screen lies in Windows' System Configuration Utility, also known as Msconfig. This is the tool that lets you disable items at startup. While we commonly use this utility to speed up the boot process by

removing files from its startup list, it is also the control center for the boot logo.

From the Start menu, select Run, type **msconfig** in the Open field, and click OK. In the System Configuration Utility dialog box, select the BOOT.INI tab. In the Boot Options section, place a check mark in the /NOGUIBOOT checkbox and click OK. When you reboot your PC, you'll see the WinXP logo has disappeared.

Another item you can get rid of during startup is the logon screen. If you're the sole user of your PC, being prompted to log on each time you start your computer can be annoying and a waste of time. (Remember, though, that requiring a user to log on may be an important security measure, especially if other people can access your computer or if your PC is stolen.)

To open the User Accounts dialog box, go to Start, select Run, type **control userpasswords2** in the Open field, and click OK. (Note the space between "control" and "userpasswords2.") Deselect the Users Must Enter A User Name And Password To Use This Computer checkbox and click Apply. In the Automatically Log On dialog box, enter your username and password. Click OK.

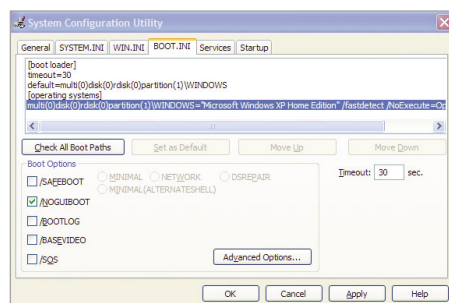
So far we've covered how to disable startup screens. Now let's spice it up a little and discuss how to create personalized, graphical startup screens. Technically, you have the ability to replace the Windows logo with one of your own. The process involves creating your own logo with an image editor and using a small bit of freeware to replace the WinXP logo with your customized graphics file. We can't endorse this technique, however, because Microsoft is very clear that it is illegal. A note on the Microsoft Web site says: "You cannot replace the Windows XP logo with a custom logo, because doing so violates the Microsoft EULA [End-User License Agreement]."

But what you can do is take advantage of some of the many freeware programs available. These programs don't replace the Windows logo; instead, they hide the Windows boot screen entirely and replace it with their own screens.

The Freeware Approach

There are dozens of great freeware programs for changing your boot, splash, and logon screens. We can't cover all of them in this article, but here are some of our favorites. They perform various functions, but they all have one thing in common: They're absolutely free.

You can eliminate the Windows boot screen by selecting the /NOGUIBOOT checkbox in Windows' System Configuration Utility.



And, yes, there's one more important factor to consider before using freeware programs to customize your WinXP startup screens. A disturbing number of freeware download developers create applications and sites that bombard unsuspecting users with pop-up windows, spam, and other unwanted material. To avoid this, we rely on McAfee Site Advisor's rating system for indications of the safety of such sites, and we recommend you use this program or a similar one when downloading freeware. In this article, we've recommended the URLs of freeware only from sites that McAfee has given a green (go-ahead) rating.

BootSkin

Stardock

www.stardock.com/products/bootskin

Stardock is one of the leaders in boot screen freeware. Not only has the company been around since 1993, but it also claims more than 10 million users worldwide of its products such as WindowBlinds, CursorXP, and IconX. One of those widely used products is BootSkin, a program that lets you replace your Windows boot screen with either an image you can download legally or one you can create yourself.

One of the reasons we're enamored with BootSkin is that the program is relatively small—only 20KB—so it doesn't eat up valuable hard drive space. Another reason is that it's easy to use. You install the program and then choose one of the preinstalled screens (including a thunderstorm, light pyramid, and even a snowy Christmas scene), or you can download from a library of thousands of boot screen images at www.wincustomize.com/Skins.aspx?LibID=32. You'll also find numerous tutorials for creating your own BootSkin. Lastly, be sure to check out Stardock's free LogonStudio, a program for customizing your Windows logon screen.

LivenUp

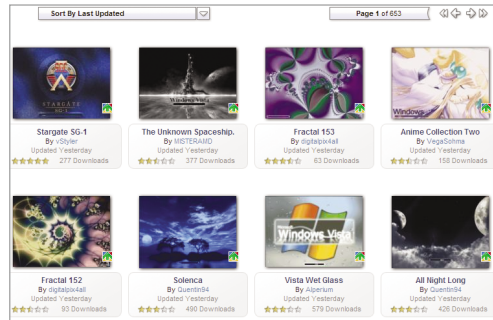
Nagarsoft

www.nagarsoft.com/livenup.aspx

One of the benefits of using a piece of freeware to change your startup screens, rather than doing it yourself manually, is that you don't risk unintentionally altering your Registry or other key component of your PC with a mistyped character. With freeware programs such as LivenUp by Nagarsoft, the process of changing your boot



Change your logon screen with Nagarsoft's LivenUp freeware app.



Download hundreds of BootSkin images from the WinCustomize Web site.

and logon screens is as simple as dragging and dropping a desired image into the proper place.

LivenUp's interface deserves praise for its user friendliness. You select the item you'd like to modify—boot screen, logon screen, or

wallpaper—view the preview images, and then double-click the item to select it. You can even drag and drop your own images into the interface. And because LivenUp doesn't replace system files, it's easy to restore your original settings.

Daily Tao Quote Software

Robert Friedler

www.thetao.info/downloads/other.htm

A picture may be worth a thousand words, but sometimes words carry just as much impact. In keeping with the simplicity of the philosophy, the Daily Tao Quote Software displays a quote from the Tao and a related image when you boot your machine. You can decide how long the quotes display, from 30 seconds to three minutes.

Themes Gallery: XP Boot Screens & XP Logon Screens

Belchfire

themes.belchfire.net

If you're a bit more technically minded and enjoy tinkering with your PC, we suggest you check out the Belchfire community. Belchfire is made up of individuals who post files to various galleries. According to the site, all files in the Themes Gallery are adware- and spyware-free and are scanned for viruses. You'll find hundreds of colorful images, from logon screens filled with adorable puppies, racy swimsuit models, and outdoor scenery, to boot screens featuring sci-fi, Microsoft, and Firefox themes.

The site links to several tools that help you manage logon, boot, and splash screens, but it will take a little exploration. Still, the site has so many logon and boot screens that the effort may be worth your while.

Prolong The Excitement

After you've changed your boot, splash, or logon screens, you'll no longer have to stare at the ubiquitous Windows startup screens. But if you find your new screens are no longer exciting, you can simply try a new download or technique. After all, booting your computer should be interesting each time it happens—and we mean that in a good way. ■

BY HEIDI V. ANDERSON

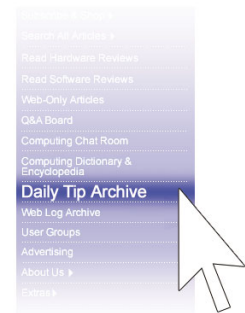
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Among the top 25 items viewed at SmartComputing.com at press time were editing the Startup menu, fixing a slow PC, and the always-unpopular red X issue.



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Click the Site Map link at the bottom of SmartComputing.com for a quick look at how the site is arranged. Site maps usually make it easy to find exactly what you're looking for.



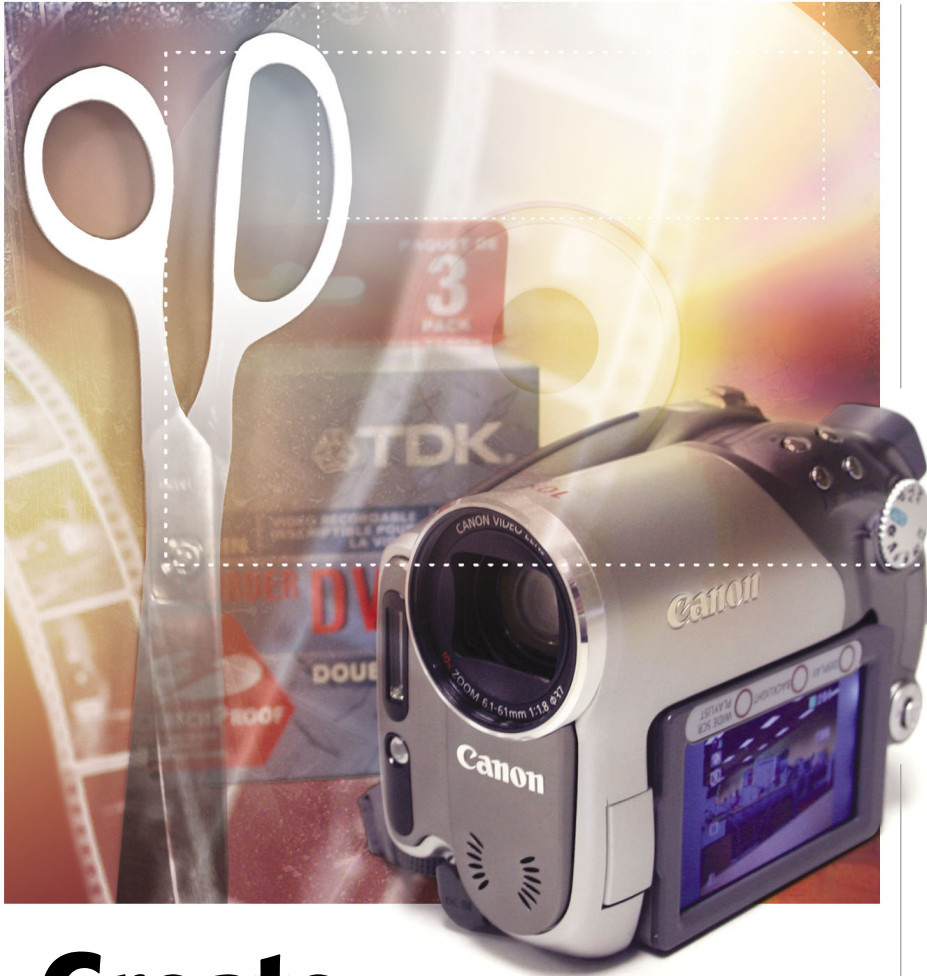
From *Smart Computing's* Daily Tip Archive

Google Search Bar

If you want to prevent the toolbar from saving searches, click the Google button, click Options from the drop-down menu, choose the More tab, deselect Save The Search History Across Browser Sessions, and click Apply and OK. Then click the Google button and click Clear Search History.

Outlook 2000 Startup Options

To change the area Outlook launches in, click Tools and Options, click the Other tab, and click the Advanced Options button in the General area. In the Advanced Options dialog box, select Tasks from the Startup In This Folder drop-down menu. Then click OK and Apply. You can also opt for other startup locations for Outlook (such as Calendar or Contacts), depending on your needs.



Create Video & DVDs

Today's Software Makes It Simple, Fast & Affordable

Years ago, creating a film required a team of highly trained operators and some very sophisticated cameras, editing machines, and film processing equipment. Distributing it required making expensive reels and physically shipping them to each theater. It's different now. For only a few hundred dollars you can get a very capable digital camera. To process the video produced by that camera, all you need is a PC and some software. And finally,

distribution is easy: Just create a DVD or upload the video to a server, and there it is for everyone to see.

In this article, we'll walk you through the process of taking footage from your camera, turning it into a computer file, editing it, and making a DVD.

The Beginning: Move Video To Your PC

For our example, we're going to capture some holiday video, edit it to

show just the exciting parts, and then create a DVD. The first step is to get the footage from the camera onto your computer.

Different cameras give you different options for copying video to your PC. Some cameras create a DVD or mini-DVD, which you can insert into your computer's optical drive. Some use a removable memory card to store video; those cards can simply be inserted into a card reader attached to the PC; or the camera itself can be connected to the PC via a USB or FireWire port. One way or another, almost all cameras let you capture video, that is, take it from your camera and turn it into a file. That's what we'll do now.

First, connect the computer to the camera, using either a USB or FireWire cable. (Some cameras support both, but FireWire is the most popular vidcam interface.) Plug the camera into the PC and turn it on. Your camera's users manual will tell you if any special software has to be installed in order for it to work with Windows. Most of the time, your system will recognize that a camera has been attached to it.

When capturing video, your computer acts like a VCR; you capture the video by clicking the software's record button (possibly labeled Record, Start Capture, or something similar), and then pressing the Play button on the camera. As your camera plays back the recorded video, a Capture or Preview window shows what's being played, while the computer records the video to a file. Click the Stop Capture button when the entire video has played.

Keep in mind that you may not have to worry about capturing the video. If your camera saves video to a mini-DVD or to an on-camera flash memory device, then the "capture" has already taken place; all you need to do now is move the data from the memory card or optical media over to

the computer. That's generally accomplished by using Windows Explorer to drag the file(s) over to a folder on your PC.

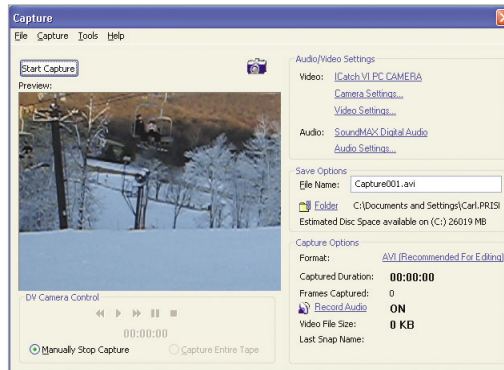
The Director's Cut: Edit Your Video

In the old days, editing involved literally cutting pieces out of a strip of film and taping them together. Computers make it a lot easier. We're going to take only the cool parts of our holiday footage, connecting them together to make an exciting vacation video. Modern digital video-editing is pretty simple: You use familiar Windows menus; toolbar buttons; and cut, copy, and paste commands. With most editing software, you can move scenes around by clicking and dragging the files or video segments.

Video footage from a camera can be saved in several different formats. The most common are probably AVI (Audio/Video Interleaved) or WMV (Windows Media Video), but some cameras record in Apple's MOV (QuickTime Movie) format. We'll add our vacation video to the timeline by dragging the file from Windows Explorer over to the timeline.

You can drag all sorts of media files to the timeline, including video files, sound files, and still pictures such as GIF and JPEG images. Most video-editing programs keep the video and audio files on separate parts of the timeline so that you can add sound to the video. Be careful to keep the audio and the video lined up. If video and audio don't match, you can end up with a "badly dubbed Japanese monster movie" effect in which people's mouth movements don't match what they're saying. For our vacation video, we'll be adding a musical soundtrack, so we don't have to worry about keeping mouth movements synchronized with a vocal track.

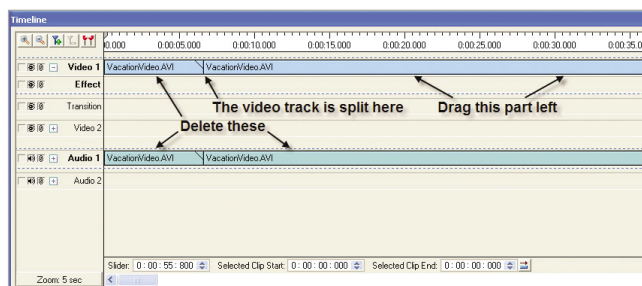
What we'll do is edit the video track by deleting all the parts we



The editor's Capture function turns any video you can display on your computer into a file you can edit.

don't want. For starters, we can remove the "empty" section at the beginning. (This generally amounts to only a few seconds' worth of "dead air" that results when you begin capturing before the camera actually starts its playback.) Just click the Play button, and the preview window shows the video playing. The slider starts moving as the video plays, and you can click the Pause button when you get to the beginning of something you want to keep. Use the Right and Left arrow keys on the keyboard (or the buttons on the Preview window) to make small adjustments to the slider position, and then use the Split Track command to cut the video at that spot. Now the video is cut into two pieces. Just click the piece you *don't* want (in this case, the one at the beginning) and press the DELETE key. (Remember, while most programs operate similarly, your video-editing program's interface may differ somewhat from our example.)

Now you've removed the video footage you don't want, but you have some empty space in the timeline.



Simply drag the video to the left with the mouse. Continue using this technique—cut around the unwanted footage and delete it, and then close the gap—to remove everything from the timeline except for the exciting parts you want to keep.

Now it's time to add the musical score. First, you need to remove the existing sound. In our case, we click VacationVideo.AVI in the Audio 1 track and press the DELETE key.

Depending on the software you're using, almost any kind of sound file can be used for your soundtrack. For this article, we're using DeskShare's Video Edit Magic (\$69.95; www.deskshare.com), which allows us to use WAV, MP3, WMA (Windows Media Audio), and MIDI (Musical Instrument Digital Interface) files. Simply drag the file from the Media Collection and drop it onto either Audio Track. Make sure you place it all the way to the left so that it starts as soon as the video does. If one song isn't long enough, simply drop another (or another copy of the first one) next to it.

Delivery Systems: Create & Distribute Your Movie

Now that you've edited your video, it's time to create an actual movie that you can show to other people. For that, you need to think about how you'll be sharing it.

DVD vs. Internet. There are several Internet services that will host your video clip, allowing anyone with Internet access to see your video, once you complete and post it. If you are planning to use a

In Video Edit Magic, you can use your mouse to edit the video. Just drag the clips to the time you want them to play.

hosting service such as YouTube.com or VideoDesk.net, the exact format you choose will depend on the specific company's requirements. If you're going to make a DVD, that process has its own specific requirements. With DVDs, the quality will be high, but you'll need to deliver the actual discs to your audience.

Create a DVD. The settings used to create a DVD are built into most video editors. In Video Edit Magic, just click the Make Movie button on the toolbar. You can select MPEG Formats (VCD, SVCD, and DVD), click Next, and choose which type of DVD to make. Select NTSC (National TV Standards Committee), which is the standard for TV and DVDs in the United States.

The only other setting for DVDs offered by the application we're using is the **aspect ratio**. This is the ratio of width to height. Standard television is 1.333 times wider than it is tall, a ratio of 4:3. HDTV and most theatrical movies have wider ratios—a "wide screen" that usually displays using a ratio of 16:9. To make our holiday video, we should follow the shape of the image that the camera recorded; our particular camera recorded in 4:3, so we'll stick to that.

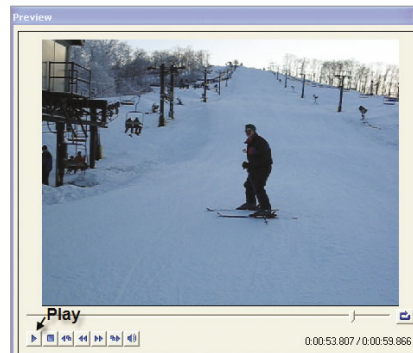
The video editor creates a video file that is correctly formatted for a DVD, but in most cases that file will be saved to your hard drive; you'll still need to burn the file to a DVD. There are many DVD authoring programs available to help you do that. In fact, if your PC came with a DVD burner, one may have come bundled with your system.

When burning the DVD, remember that there is a difference between simply moving data files over to the disc and creating an actual DVD that will be playable on home DVD players. In this case, you want to make sure that, whatever software you're using, you select the option that creates a true video DVD, rather than a DVD data disc.

Video for the Internet. Of course, DVDs aren't the only way to share your video. Services such as YouTube

let people share their video over the Internet. Remember, though, that distribution by Internet is probably not the best solution for very long videos, and it does require that the person viewing it have a fairly fast Internet connection (or a *lot* of patience).

The best-known of the video-sharing services is YouTube, but YouTube imposes restrictions on the video you can upload. For instance, no matter what the image size of the video you upload, the service will reduce it to the size of its standard player. YouTube also imposes limits on file size and on the length of the video it accepts, so we'll upload our



In most editors, simple VCR-style controls let you preview the movie while you work.

vacation video to Video Desk, a service that allows any size and quality of video, but which requires the file to be in WMV format.

Because of that flexibility, we have more choices to make. One is the **frame rate**. All computer video is actually a series of still pictures that change multiple times every second. The number of changes per second is the frame rate. Theatrical movies change about 24 times per second, while American TV changes just under 30 times per second. Computer video varies. The frame rate you need depends on how much movement there is in the movie: Fast motion captured on video will look "jerky" if it's played at too low a frame rate.

Another factor to consider is the image or frame size. All pictures (and

this includes moving pictures) on a computer screen are produced using **pixels**, tiny colored dots that change color. The frame size of a movie is given in number of pixels wide by the number across. Some services limit your video to 320 x 240 pixels. (If you upload a video with a larger frame size, the service reduces it.) We'll create our video with a resolution of 640 x 480. The downside of the bigger frame size is that it makes for larger files. A viewer with a slower Internet connection will either wait a long time for the video to start, or might have the video pause during playback.

The final number to select is the **bit rate**. All computer information is in bits, the smallest unit of information. The bit rate of a video file reflects how much data is sent each second. The higher the bit rate, the better the quality. Low bit rates mean a fuzzier picture, especially when the onscreen image changes rapidly. We're looking for very good quality, so we'll use Video Edit Magic's 2,073Kbps (kilobits per second) setting. Any video editor will give you a range of bit rates from which to select; it's a good idea to try a few different settings and see which one works best for you.

You're ready to create the movie. Just click Next on the last screen of the Make Movie wizard. All you have to do now is upload the file. Most video services will help you display it on the service's own page, embed it in your blog, or send a video email.

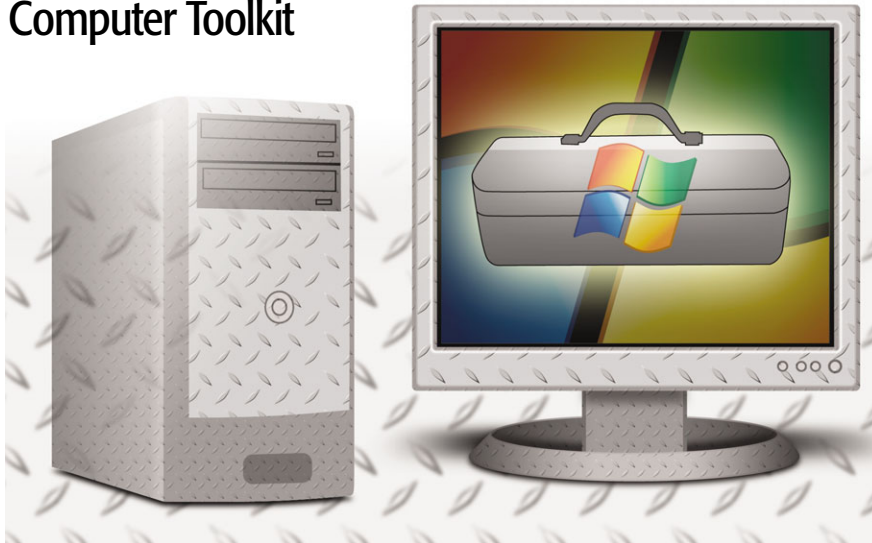
Ready To Go

You're now ready to create your own movies, from filming through editing and distribution. There's lots more you can do, once you get comfortable with the basics. For instance, you could add text to the video—as the director and editor, you surely want (and deserve) your name in the credits. With a little practice, you can create films that rival the pros'. ■

BY CARL FINK

Protect A Public PC

How To Use Microsoft Shared Computer Toolkit



Have you ever wondered how computers in schools and libraries withstand daily onslaughts from random users, while the average 12-year-old can corrupt, infect, and mess up just about everything on a family computer in mere minutes?

If you are looking for a simple, free way to limit a child's time on your computer, restrict certain programs from being run, or just reverse the abuse your home computer will endure at the next family get-together, the Shared Computer Toolkit for Windows XP might just be the silver bullet you are looking for.

The Shared Computer Toolkit can be used on any PC running any version of WinXP. You can download it from Microsoft's Web site at www.microsoft.com/windowsxp/sharedaccess. Before you can download the toolkit, you will need to pass Windows Genuine Advantage validation to ensure your copy of WinXP is legitimate.

Download & Install The Toolkit

Installing the toolkit is a multistep process that involves installing the User Profile Hive Cleanup, or UPHClean, service. This is a free utility that ensures all of the profiles on your computer are intact and working properly. The toolkit uses scripting to install itself on your computer. If you use an antivirus program such as Norton AntiVirus, the toolkit's installation scripts might generate script warnings even if your antivirus software is turned off. If you receive any script warnings from your antivirus software while installing the toolkit, select the option that will allow the script to run.

When you download the toolkit, save it to a convenient place, such as your Windows Desktop. Double-click the toolkit installer to begin the installation process. The first screen of the toolkit requires you to install the UPHClean utility on your computer. There is a button on this screen that

will take you directly to the download page for this utility. Download and install the utility on your computer before clicking the Next button in the toolkit setup screen.

You will be returned to the toolkit setup window. When you click Next in the setup screen, it may report that the installation was interrupted and that no changes were made to your computer. If this happens, exit the setup program and double-click the toolkit installer you saved on your Desktop to restart the process. Once you have completed the installation, the Getting Started window should open automatically.

Set Up The Shared Computer Toolkit

The setup process for the toolkit is organized into eight steps. The Getting Started window will automatically open to Step 1. You can skip around through the steps and complete them in any order, but we will list them here in their numerical order.

Step 1:

Prepare The Disk

For Windows Disk Protection

Windows Disk Protection is a major component of the toolkit. This feature allows you to take an image of your computer's hard drive and then roll back any program installations, remove saved files, or restore system files that other users might have deleted.

This is also the most difficult component of the toolkit to set up, because before you can enable the Windows Disk Protection tool, you are required to have unallocated disk space. Microsoft recommends using a hard disk partitioning utility such as Norton Partition Magic 8 (\$69.95; www.symantec.com) to prepare your hard drive.

If you do not have experience repartitioning your hard drive, we strongly recommend you seek the assistance of a computer technician. Making a mistake during this process can erase your entire hard drive. If you do not have the software or the knowledge required to complete

Step 1, skip it for now and proceed to Step 2.

Step 2:

Select Computer Security Settings

This step is extremely useful for customizing the way Windows will look and behave when a user logs in to the computer. You can easily protect the Windows folders, customize the Start menu, and remove specific accounts from the Welcome screen.

Microsoft recommends that you select all items in Step 2 if the general public will be using your computer. Some of the items may require you to restart your PC before they take effect.

Step 3:

Create A Public Account For Shared Access

If the computer is going to be used by multiple people, you should protect your administrator account with a strong password. Step 3 provides a shortcut to open the User Accounts window, where you can modify your account password, as well as create a public account that does not have a password for others to use.

With the User Accounts window open, click Create A New Account and then name that account Public. Click the Next button, select Limited, and click the Create Account button. Close the User Accounts window to return to the Getting Started guide.

Step 4:

Configure The Public User Profile

Next you need to log out of your administrator account and log in to the public account you just created. Take a moment to set the Desktop wallpaper, configure the icons, and make any other changes to the visual elements you want your public users to see.

If you have multiple printers hooked up to your computer or network, select which one should be the default printer for this profile. Once you have completed your customizations, log out of the public profile and then log back on to your administrator account to get back to the toolkit's guide.

Step 5:

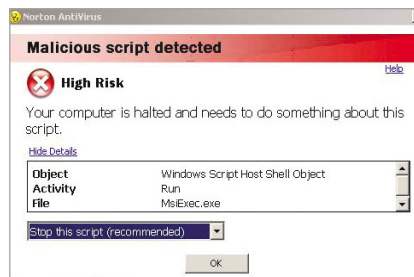
Restrict & Lock The Public User Profile

This step locks in the customizations you just made to the public profile and gives you very precise control over what a user is allowed to do.

Click the Open User Restrictions button. Next, click the Select A Profile button and then click the Public profile. Under the General Settings section,



The Microsoft Shared Computer Toolkit requires you to install the UPHClean (User Profile Hive Cleanup) utility to ensure all of your profiles are working properly before you can protect your computer.



Some antivirus programs may detect the installation of the Microsoft Shared Computer Toolkit as a malicious script. Allow the scripts to run despite the warnings.

you can specify the home page you would like Internet Explorer to use each time it is opened. You can also set the number of minutes a user is allowed to be logged in to the profile before he is automatically logged off.

Select the Lock This Profile checkbox to make your customizations permanent. The Restart At Logoff checkbox is useful if you completed Step 1 of the setup. If this option is

selected, the computer will restart after a user is forced to log off. With Windows Disk Protection enabled, this would completely restore the computer to its preuse image.

The checkboxes below General Settings let you set specific restrictions on what options are available in the Start menu, limit access to sensitive Windows functions, and prevent the user from running programs that you did not specifically install. Click Apply and OK to save your changes.

Step 6:

Test The Public User Profile

This is a safety check to ensure that the options you selected in Step 5 were successfully applied. If you want to test your settings, you can log in to the public profile. You should notice that the items you selected in Step 5 are restricted as you instructed.

Step 7:

Turn On Windows Disk Protection

If you completed Step 1 in the setup process, turning on Disk Locking will cause the public account to be reset to your preuse image every time a user restarts the PC. If you did not complete Step 1, do not bother turning this on.

Step 8:

You're Done! Learn More About The Toolkit

This is more of a conclusion than a setup step. Click the shortcut to read the Shared Computer Toolkit Handbook if you want to learn more about how the toolkit can protect your PC.

Now your system is secured for use by multiple individuals. You can continue to use your computer as you always have in the past by entering your administrator password when the computer starts up. But when your family and friends come over for the next big holiday, they will be forced to use the public profile, and your computer will be safe from just about anything they can throw at it. ■

BY THOR SCHROCK

The Tethered Goat

Is Linux Really More Secure Than Windows?

If you've heard about Linux, the alternative—and often free—OS (operating system) that competes with Windows and Apple's Mac OS, one of the first things you were likely told is that it is far more secure than any version of Windows. Linux proponents are right and for a variety of reasons. It comes with many more integrated security tools than does Windows, for example, and new security measures can be easily applied without needing to patch core components of the operating system.

Linux is also open-source, meaning that the basic programming code is open for programmers to see and improve upon. Windows, by contrast, is closed source, meaning that only Microsoft can access and change the underlying code. The open-source nature of Linux has attracted a huge number of highly talented white hat hackers, who probe Linux for weaknesses the same way a black hat hacker would, but then fix the flaws before they can be exploited. By design, Windows doesn't have this large community of supporters working in its favor, so the company is forced to respond to threats as they are revealed instead of proactively plugging security holes.

Linux also has the advantage of being highly compartmentalized compared to Windows, meaning that even if a malware program does somehow manage to break in, the damage it can do is often restricted to one area and the rest of the operating system is unaffected. Windows malware can gain access to a much broader range of the OS and can often bring down the entire computer or grant complete access to

all of the operating system's components.

Batten Down The Hatches

When it comes to the Internet, Linux is theoretically just as vulnerable to attack as Windows because both OSes use TCP/IP (Transmission Control Protocol/Internet Protocol) to let data in and out through various TCP ports. There are thousands of these ports, and each represents a door that a potential attacker can use to gain access to your computer. Port scanners are available that are designed to search for open ports. Hackers can use them to either flag unlocked ports for a future attack or to initiate an attack immediately.

Although Linux uses TCP/IP for transmitting and receiving Internet data, most versions of Linux (called distributions) are more secure than Windows out of the box because more TCP ports are locked down by default. Windows uses a lot of system utility programs called services that open up ports, effectively giving intruders more doors to work with.

Popularity Contest

The SANS Internet Storm Center (isc.sans.org) claims that the average unprotected Windows XP PC connected to the Internet will be attacked in 10 minutes or less, on average. To test this, we connected a PC



that had a fresh installation of Ubuntu Desktop (a Linux distribution) to the Internet and watched for attackers and then installed a fresh copy of WinXP SP2 (Service Pack 2) on the same machine and repeated the test. Both were actively probed by outsiders within 30 minutes, but after several days of testing, the Windows PC had a worm installed on it while the Linux machine was left untouched. The inherent security and compartmentalized structure of Linux are huge components of its resilience, but there are many contributing factors that make Windows more susceptible to attack.

People who program viruses, malware, and spyware targeted at home users want to do the most damage,



SpywareBlaster differs from many antispyware programs in that it locks down your computer so attackers can't get in instead of fighting them once they get there.

gather the most information, or co-opt the largest number of computers possible, and Windows' 90%-plus market share makes it a perfect target. Home computers with Windows are also much more likely than home computers with Linux to contain valuable information. The slowly growing contingent of people who use Linux as their main operating system for home computing is hardly big enough to be worth a malware programmer's time.

Anatomy Of An Attack

Let's pretend we're bad guys who want to perform a DoS (Denial of Service) attack on a corporate Web site. A DoS attack works by flooding a Web server with so many requests for information that the server becomes overwhelmed and locks up or even crashes. No single computer can generate enough requests to perform an effective DoS attack, and the attack could be traced back to you anyway; so the best form of attack would be to install a virus. The perfect DoS virus installs itself undetected on a computer, propagates to other computers via email or other means, and then erases its tracks and lies dormant until the precise time the DoS attack is scheduled to happen.

Even the most damaging viruses only infect a small overall percentage of PCs, so designing it for Linux is out of the question, because you'd never achieve the critical mass of computers needed to mount an effective DoS attack. The only OS that is installed on enough home computers is Windows, so that's what malware programmers target.

Another popular type of attack exploits buffer overrun errors. Most programs that accept input from devices such as mice and keyboards have a memory buffer that temporarily stores input until the computer has a chance to process it. Programmers can take advantage of this to assume complete control of your computer. The most popular way to perform a buffer overrun attack is to load the data from a Web page when some unsuspecting

soul visits a Web site, so let's put our black hats back on and see how we can get maximum effectiveness out of our attack. We want to exploit the Web browser used by the largest number of people, which is Internet Explorer. Once we exploit the browser we want to make sure our malicious software will have the best chance to actually execute, so we design it for Windows. As you can see, going with a combination such as the Firefox browser and Linux operating system eliminates more than 90% of our potential victim pool, so why worry about anything other than Microsoft's software?

Know Your Distributions

Just because Linux is an inherently safer and smaller target than Windows doesn't mean you should let your guard down. There's no such thing as a perfectly secure operating system. If

you use Linux, make sure to read the documentation for your distribution carefully to see if there are any important security settings that are not enabled automatically, and use the same type of security programs you would use to lock down a Windows PC.

Root For The Underdogs

No matter what OS you use, it is possible to dramatically increase overall security by going against the flow when it comes to networking and Internet applications. Instead of Internet Explorer, consider using a browser that has less market share. Instead of Windows' built-in firewall, try a third-party application. There's nothing you can do to avoid hackers who are specifically targeting you, but you can do a lot to avoid their attention in the first place. ■

BY TRACY BAKER

Best Defense

Aside from avoiding popular Internet-enabled software such as Internet Explorer, there are four main ways you can keep hackers and the malicious software they create at bay.

Firewalls. A firewall is your first line of defense because it examines all data entering or exiting the PC to make sure you personally requested it or sent it. Only use one firewall and make it a third-party one, such as Comodo Personal Firewall (free; www.personalfirewall.comodo.com).

Antispyware. Spyware lets programs communicate private data through the Internet without your permission, so be sure to use a product that locks down your computer. We recommend you try a product such as SpywareBlaster (free; www.javacoolsoftware.com/spywareblaster.html) along with one that eradicates spyware, such as Windows Defender (free; www.microsoft.com/athome/security/spyware/software/default.mspx). You can use as many antispyware applications as you want to.

Antivirus. Antivirus software scans email and other incoming files to make sure they aren't infected with known viruses, and they also take care of viruses that have somehow infiltrated the computer. Any brand-name tool will do the job, but never install more than one antivirus program on the computer at once.

Updates. Keep your operating system patched with the latest fixes at all times by using tools such as Windows Update (windowsupdate.microsoft.com). You also need to check for the latest antivirus and antispyware updates at least weekly and check to see if firewall updates are available at least monthly. ■

READERS' TIPS

Many of our readers come across fast, easy ways to solve a problem or accomplish a task. Well, we'd like to hear about it! If you have a great tip you'd like to share, please email us at readertips@smartcomputing.com. If we print your tip, we'll send you a free *Smart Computing* T-shirt. You'll be the envy of all (well, some) of your friends.

Please include your first name, last name, and address, so that we can give you credit if we print your tip. (And so that we can send your T-shirt to you, of course.) Please limit your tip to 200 words or fewer. Not all tips received will be printed, and tips may be edited for length and clarity.

Helpful Advice & Solutions From Our Readers

Conversion Helper

I love this little conversion program. It's small, but so useful for converting recipes, gas mileage and units of distance, temperature, volume, time, speed, mass, power, density, pressure, energy, and many others. For a free download, go to joshmadison.com/software/convert.

SUSAN D., ST. CATHARINES, ONTARIO, CANADA



Sandra: Another Info & Diagnostic Option

I recently saw one of your tips for the Belarc Advisor, and it seems a lot of people I know are familiar with that one. If readers are looking for an information and diagnostic utility, another option

I recently discovered is Si Software's Sandra (www.sisoftware.co.uk). There are several versions; the Lite version is free. It not only provides information on hardware and software, but also gives details about your configuration, lets

you check benchmarks, rates your system's performance, monitors the environment, etc. Like Belarc Advisor, you can print a report that is *very* handy to have around.

TINA A., MT. PLEASANT, S.C.

Renaming Helps Keep Track Of Downloads

After downloading a program file to my Desktop, I can never remember what the download is connected to, mainly because the download name usually looks like some sort of gibberish. If it is an executable file, I leave the ".exe" part and rename the first part so I can tell what the file belongs to. For example, Kf151.zip is a zipped file containing a key-finder program. I would change it to something like Keyfinder.zip; that way I can easily associate it with the appropriate program.

STEPHEN C., WINDSOR, ONTARIO, CANADA

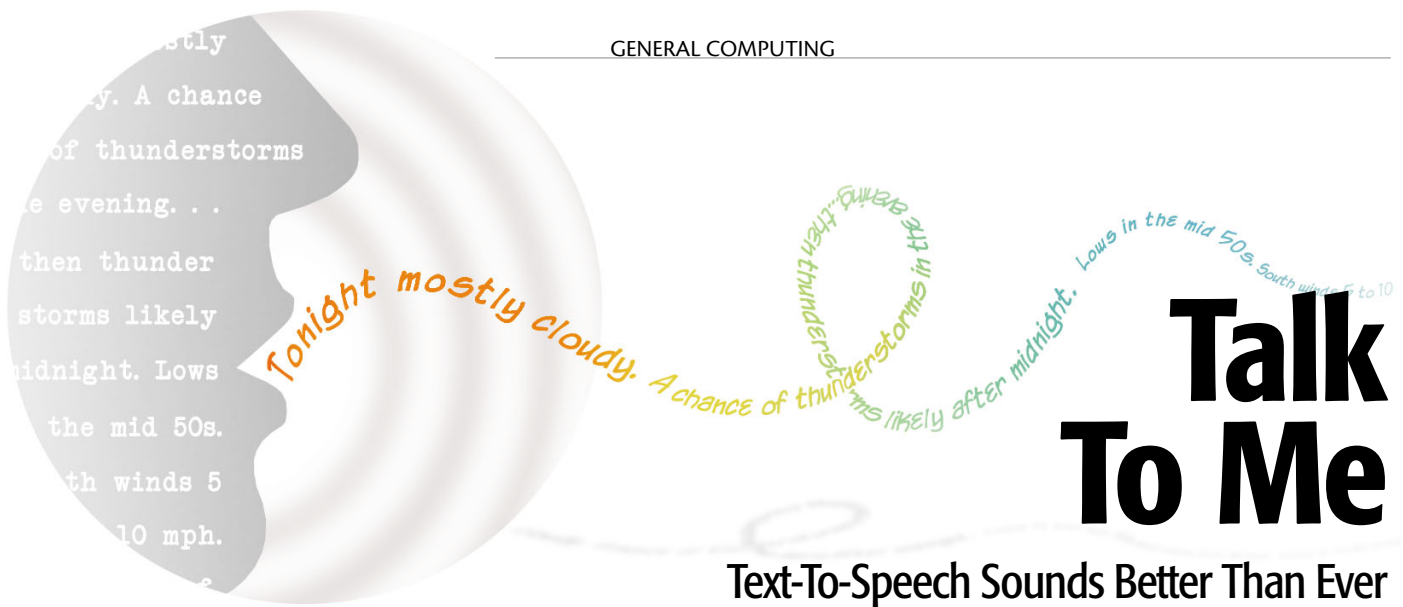
Shut It Down

Much has been said, and rightly so, about rebooting a system to solve many system ills. I have seen this prevent service calls to semi-distraught customers on a number of occasions. One additional piece of advice goes with the reboot scenario: If a simple reboot does not solve a problem, go through a full shutdown *and* turn off the CPU's power switch (or disconnect the CPU power cable if no ON/OFF switch is available). Wait several seconds, turn the power switch on (or reconnect the cable, as applicable), and reboot. This can sometimes help because not all system interfaces are released when Windows is shut down. While this additional step does not work all the time, it's an easy (and free!) check.



CARL M., OAKDALE, CONN.





Talk To Me

Text-To-Speech Sounds Better Than Ever

As the term suggests, modern forms of TTS (text-to-speech) technology let a computer convert text into audible speech. For a vast majority of us, converting text into speech is as simple as reading aloud. But for others, such as those who are sight-impaired or suffer from low vision, TTS software is fundamental to using a computer, reading email, or browsing the Web. Converting text into speech requires highly-specialized software that, until recently, sounded more Speak & Spell than HAL 9000. Educational toys and fictional supercomputers aside, you may be surprised at how useful text-to-speech software can be for you.

TTS Then & Now

Speech synthesis, or the act of generating artificial speech using machines or software, is the fundamental technology behind TTS. Research on the subject predates modern computing. Homer Dudley's speech synthesis machine, named Voder, could generate human-like sounds, and with the help of a trained operator, serenaded attendees at the 1939 World's Fair with a warbled rendition of "Auld Lang Syne." In the 1950s, scientists used electronics designed to emit sounds at frequencies similar to those produced by the human vocal tract, but the results still sounded thoroughly inhuman.

Several decades later, Bell Labs researchers took another approach, called concatenative synthesis. This method employs a limited amount of prerecorded speech split up into its fundamental vowel and consonant sound units, or phonemes, which are then mixed and matched to produce unique words and sentences. The result was a much-improved ability to produce intelligible speech on-the-fly, but because the number of phonemes being used was rather limited, these systems sounded less than convincing.

As computing hardware improves, TTS algorithms are becoming better able to search for and splice together a greater number of phonemes, which has led researchers to focus more attention on sounds as they occur in context with adjacent sounds, varying pitch in a given sentence, and the stressing of sounds in certain words. As a result, current TTS software can mimic human speech in a much more believable way than its predecessors.

What TTS Can Do For You

TTS software is utterly indispensable for users who have difficulty reading text, but it's also valuable for other users. According to Rick Ellis, president of NextUp, a North Carolina-based TTS developer, TTS software users include executives, college students, commuters, iPod users,

educators, individuals with reading disabilities, senior citizens, lawyers, and professionals in just about every field. TTS software can be used to read aloud text from email, e-books, word processing documents, and Web pages. If you're pressed for time, you can use audio-file generating TTS applications to save an audio recording to your portable music player, smartphone, or PDA (personal digital assistant) and listen on-the-go. TTS apps are also useful for learning new languages. If you deal with text professionally, for educational purposes, or for fun, then TTS software can help you do it more efficiently while at or away from your computer.

In order to find the best TTS application, we took a look at several that are currently available. Each application we tested comes with a handful of built-in voices, but to get the most realistic and natural-sounding voices, you'll probably want to upgrade. The TTS applications we tested all support premium voices from AT&T Natural Voices, NeoSpeech, RealSpeak, Acapela, and Cepstral, which are available starting at \$30 each from www.nextuptech.com.

Verbose Text To Speech Converter

Verbose (free; www.nch.com.au/verbose) from NCH Swift Sound is a TTS application that is capable of reading text aloud and saving an audio

file in either WAV or MP3 format. Verbose also comes bundled with a handful of standalone utilities designed to help you work with the audio files, including WavePad (a sound editor), Express Burn (an audio or data CD-burning utility), Express Dictate (an audio-recording utility), and Switch (an audio file conversion utility). You can choose to install these by selecting the appropriate checkboxes during the Verbose installation.

In our initial tests, Verbose failed to read any text directly from Web pages and crashed whenever we tried. We uninstalled the application, reinstalled it, and the problem went away. A quick perusal of the Verbose Help documents, Web site technical support, and a general Web search failed to provide

any additional information, so this may have been an isolated occurrence.

Verbose highlights include the ability to assign hotkeys to commonly performed actions, such as Read All Text From The Last Active Window and Copy Text From Clipboard. We also like that the Verbose interface was designed to look very similar to a Windows Explorer window, with tasks listed in a menu bar along the left side of the interface. Click the links in the Other Tools category, or Tools from the menu bar at the top of the Verbose window, to access the WavePad, Express Burn, Express Dictate, and Switch utilities. These add-ons all performed well and were easy to use. The WavPad in particular offers an impressive range of effects and editing capabilities. These utilities are also useful for editing, burning, recording, and converting audio files not created in Verbose.

Verbose comes with three voices, including "Michael," "Michelle," and "Microsoft Sam" (the same voice used in WinXP's Narrator). The

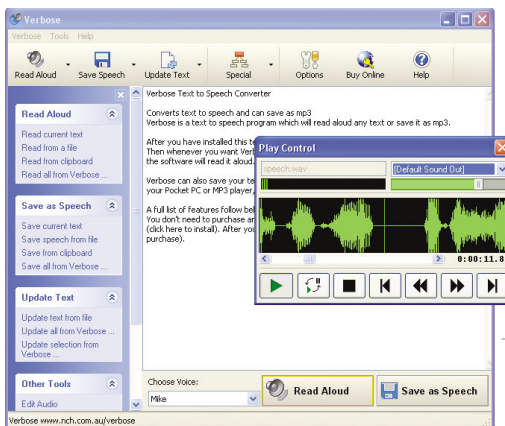
preinstalled voices are stilted and robotic-sounding, but generally easy to understand. For the best sounding voices, you'll want to upgrade to a premium voice.

You can install and use Verbose for free for non-commercial purposes, but a professional license costs \$34.90 and an additional \$18.75 for a CD-ROM, printed manual, and shipping.

TextAloud

NextUp's TextAloud (\$29.95; www.nextup.com) enables your computer to read text from emails, Web sites, and just about any document that contains text. The application lets you save the audio files in your choice of MP3 or WMA (Windows Media Audio) format so you can easily take them with you on a handheld device or portable MP3 player. During the installation, the core TextAloud application is installed on your system, as well as the TextAloud Toolbar plug-in for IE, Outlook, and Firefox. The TextAloud Toolbar appeared at the top of the browser in Firefox by default the next time we opened it, but to display the toolbar in IE we had to right-click the menu bar and click TextAloud.

In our tests, the program's performance varied between IE and Firefox.



The Verbose interface looks similar to a Windows Explorer window.

Windows' Own TTS Tools

If you want a quick introduction to TTS, you may be surprised to find that Windows XP and Vista both include a TTS utility, called Narrator. To access Narrator in WinXP, click Start, All Programs, Accessories, Accessibility, and then Narrator. In Vista, click Start, Control Panel, Ease Of Access, Ease Of Access Center, and then Start Narrator. A popup dialog box will appear to give you a brief overview of how to use Narrator. Click OK to proceed.

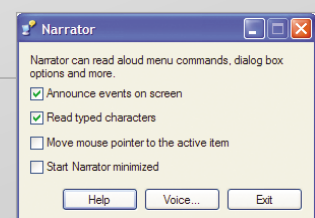
For the most part, WinXP and Vista's Narrator share the same basic functionality. Both versions can be configured to echo your keystrokes, announce system messages, read aloud on-screen events, and start up minimized. WinXP's Narrator also has the option to move your mouse pointer to the currently active window.

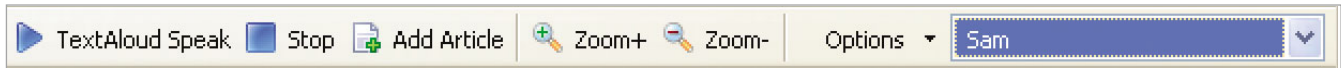
Microsoft designed Narrator to work primarily with Notepad, WordPad, Control Panel utilities,

Internet Explorer, Windows Desktop, and select portions of Windows Setup. In our tests, Narrator was able to read letters as we typed, button names, menu items, Web addresses, and most other interface items. In order to read aloud Web page content, emails, and other text sources, you'll need to copy and paste the text into a text editor such as WordPad

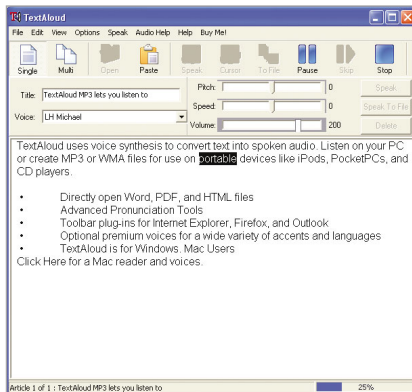
Windows XP's Narrator lets you configure your mouse pointer to jump to the currently active window.

or Notepad and then select it. Because the Narrator does better with menus and on-screen events, one of the major shortfalls of the third-party applications, we recommend using it in conjunction with, rather than in place of, one of the standalone TTS applications listed here. ■





The TextAloud Toolbar works with your browser to read Web page content aloud.



TextAloud highlights words as they are read from the text box.

In IE, the TextAloud toolbar buttons didn't support pop-up hints. But when we positioned the mouse over the buttons in Firefox, a short description of each button's function appeared. Furthermore, IE's TextAloud toolbar highlighted each word of the text as it read, but the same feature didn't work in Firefox. A representative from NextUp confirmed that the functionality of the TextAloud toolbar differs between IE and Firefox, but they are working on fixing the issue. Aside from these minor differences, TextAloud browser plug-ins worked as expected and read aloud from a variety of Web pages.

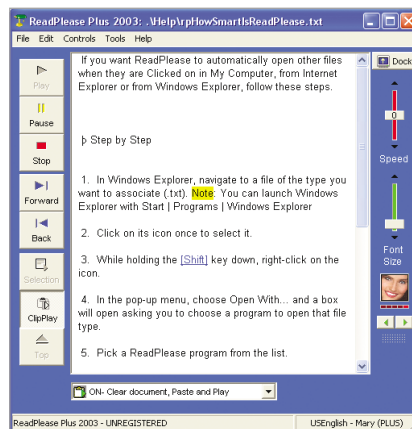
TextAloud's intuitive interface consists of a large text box below a standard menu bar; large icons for common functions such as Speak, Paste, and Open; Pitch, Speed, and Volume controls; and the title of the document and voice selection box. TextAloud includes the Pronunciation Editor that lets you reassign phonemes to a word that the TTS software commonly mispronounces. The File Splitter lets you divide a text document into multiple documents of a given size, which makes it easier to convert to audio files of roughly the same duration.

Similarly to Verbose, TextAloud comes preloaded with three rather unnatural-sounding voices; Michael, Michelle, and Sam. If you plan to use TextAloud on a regular basis, you'll want to download a premium voice from www.nextuptech.com. You can download a trial version of TextAloud that expires after 15 days.

ReadPlease Plus 2003

ReadPlease Plus 2003 (\$49.95; www.readplease.com) is designed to read from any text source that you can copy to the clipboard (right-click selected text and click Copy). We tested ReadPlease by copying text from Web pages, text documents, spreadsheets, and PDF (Portable Document Format) documents, and it worked well in most cases. Occasionally, when copying text from Internet Explorer (version 7), an ActiveX warning popped up, but ReadPlease will begin reading the copied text once you allow the action.

To get a more browser-friendly TTS experience, you can use ReadPlease's standalone ReadingBar 2 (\$69.95; www.readplease.com), which integrates with Internet Explorer to read Web pages aloud, magnify text and images, and generate audio files from the text.



You can easily resize the text using the Font Size slider on the right side of ReadPlease Plus 2003.

ReadPlease Plus 2003 works similarly to the other TTS applications here, but offers a more stripped-down interface that consists of a large text box bordered on the left by Play, Pause, Stop, and Skip buttons; and on the right by Speed, Font Size, and voice selection controls. The top of the ReadPlease window features a standard menu bar. When reading text, each word is highlighted in yellow so you can follow along.

From a drop-down menu at the bottom of the main interface, you can select how you'd like the application to read text. For instance, you can set ReadPlease to only read text that you manually insert into the application's text box (via dragging and dropping or copying and pasting) or to automatically read any text copied to the clipboard.

There are four voices that come with ReadPlease, Mary, Mike, Sam, and Marilyn; but as with those that come with the other TTS applications, they don't sound as realistic as the premium voices. ReadPlease offers a 30-day trial of ReadPlease Plus 2003, but in order to upgrade to premium voices, you'll need the full version.

Come Again?

Of the three TTS applications we tested, TextAloud offers the easiest interface to use and the most built-in functionality. Sight-impaired users might prefer the ReadPlease Plus 2003 Font Size slider and high-contrast user interface. We also recommend Verbose as the most flexible of the three applications because it lets you manipulate the audio files ad infinitum. But because each vendor offers a free trial version, we encourage you to check them out for yourself and see how useful TTS can be for you. ■

BY ANDREW LEIBMAN

More Than Music

Watch Photos & Movies On Your iPod

By now, you're probably a pro at transferring music to your iPod, but if you have a 5G iPod that can also play video, you may not yet know how to unleash all of the iPod's relatively new photo and video capabilities. We'll take a look at the steps you need to take to start taking your favorite photos, movies, and TV shows with you on your iPod.

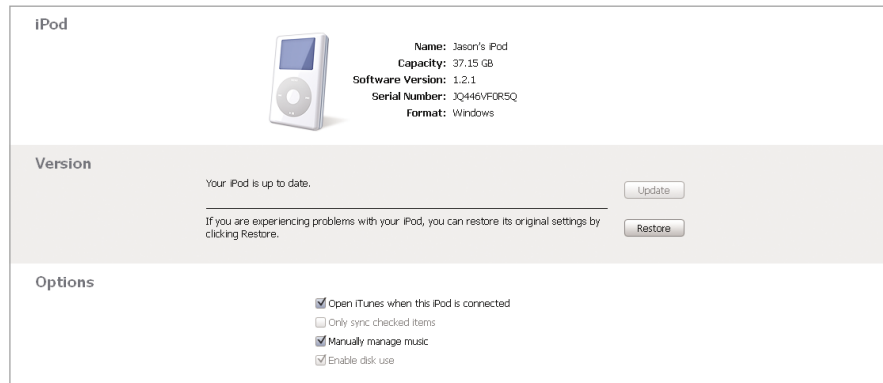
Get In Sync

To get started, you'll need to make sure that you have the latest version of iTunes. Go to www.apple.com/itunes to check for the latest version. If you do not have the most recent version, download and install it.

Once you have the most recent version of iTunes running, connect your iPod and click its icon in the left pane of iTunes. In the right pane, you'll see the iPod Summary. Click the Photos tab in the right pane. If you want your iPod to sync photos automatically, click the Sync Photos From checkbox. Then select the location of the photos you want to sync from the drop-down menu. Click Choose Folder and navigate to the folder on your computer that contains your digital photos. That's all there is to it. Each time you connect your iPod to your computer, iTunes should sync your iPod with the photos in the selected folder.

In addition to viewing still photos on your iPod, you can also view movies and videos that you bought from the iTunes Store, or you can transfer your own videos that have a .M4V or .MP4 (both are Motion Picture Experts Group-4 files) extension or a .MOV (QuickTime movie) extension.

When you buy a movie or video from the iTunes Store, iTunes adds the



When you connect your iPod to your computer, iTunes' iPod Summary screen shows many details about your iPod.

video file to your iTunes Library. If you want to transfer one of your own movie files to your iPod, you'll first need to import it into iTunes. Just drag the file from its location on your hard drive to the Source list in the left pane of iTunes.

To let iTunes sync your video collection with your iPod automatically each time that you connect your iPod, first connect your iPod to your computer and make sure that iTunes

is running. Then click your iPod's icon in the left pane of iTunes. In the right pane, you'll see the iPod Summary, along with configuration options for your iPod. iTunes lets you set syncing options by video type. For instance, you may want to sync all TV episodes automatically, but maybe you'd still like to decide for yourself which full-length movies to transfer. We'll first discuss how to set each video type to sync automatically and then cover how to manually manage each video type.

Tip:

Video files that you download from the iTunes Store should automatically appear in the proper category (Movies, Music Videos, TV Shows, or Video Podcasts) on your iPod. However, if you have transferred some of your own video files to your iPod, you may need to select the proper category for these files. To do so, browse to a video file in your iTunes Source list and click to select it. Then click the File menu and Get Info. Click the Video tab and select the correct type of video from the Video Type drop-down menu. ■



You can select the location from which iTunes should sync digital photos by using the Sync Photos From drop-down menu in your iPod's Photos preferences tab.

To automatically sync music videos that you bought at the iTunes Store, click the Music tab and make sure that the Sync Music checkbox and the Include Music Videos checkboxes are selected. If you click the All Songs And Playlists radio button, iTunes will sync all of the music videos in your iTunes Library with your iPod each time that you connect your iPod. If you want to include only music videos that are in certain Playlists, click the Selected Playlists radio button and place a check mark in the checkbox of each Playlist you'd like iTunes to sync automatically.

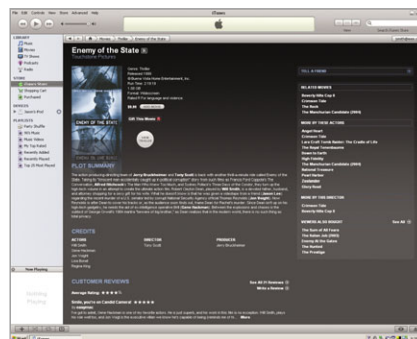
Next, we'll configure the synchronization settings for full-length movies. Click the Movies tab and make sure that the Sync Movies checkbox is selected. To sync all movies automatically, click the All Movies radio button. If you only want to sync movies that you haven't watched yet, click the All Unwatched Movies radio button. By using the drop-down menu, you can change the number of unwatched movies to transfer from All to 1, 3, 5, or 10. To sync only certain movies, click the Selected radio button and place a check mark in the checkbox of each movie you'd like iTunes to sync with your iPod.

The settings for TV Shows are very similar. Click the TV Shows tab and select the Sync checkbox. You may use the drop-down menu to select All, 1 Most Recent, 2 Most Recent, 3 Most Recent, 5 Most Recent, 10 Most Recent, or Unwatched episodes. Next, you can choose whether you want to sync all TV shows or only your favorites. To sync all TV shows, click the All TV Shows radio button. To sync only your favorite shows, click the Selected radio button and place a check mark in the checkbox of each TV show you'd like to sync automatically.

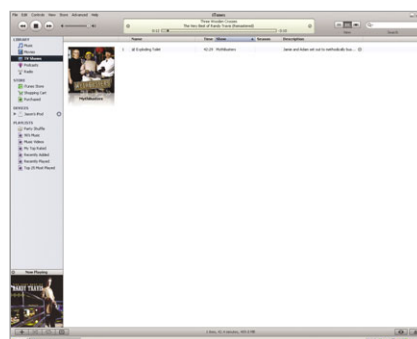
Take Control Of Your Videos

There are times when you may wish to manage your iPod's videos yourself rather than letting iTunes automatically transfer videos to your iPod. For

example, if you're running out of space on your iPod, you may need to be choosy about which videos you store on your iPod. If you want to manage your iPod's videos manually rather than letting iTunes sync your iPod with your video collection automatically, you'll first need to change the iTunes Preferences to indicate that you want to manage your collection manually. To



You can buy full-length movies in the iTunes Store that you can transfer to your iPod.



When you buy video content from the iTunes Store, iTunes automatically places the content in the correct category. For instance, this episode of "MythBusters" is moved automatically to your list of TV Shows.

Tip:

If you prefer to manage your videos with a program other than iTunes, you may select from several third-party utilities. A couple of options are Movavi VideoSuite (\$59.99; www.movavi.com) and ImTOO DVD To iPod Converter (\$29; www.imtoo.com). ■

do this, connect your iPod to your computer and then click your iPod's icon in the left pane of iTunes. To turn off autosyncing under the Music tab, deselect the Sync Music checkbox; under the Movies tab, deselect the Sync Movies checkbox; and under the TV Shows tab, deselect the Sync checkbox.

To transfer videos from iTunes to your iPod manually, connect your iPod to your PC and click Videos in the iTunes Source list to see all of the videos you've imported to iTunes. Drag any video files that you want to transfer to the iPod icon in the iTunes Source list.

Finally, The Payoff!

To play a video on your iPod, scroll through your iPod's on-screen menu and select Videos. If you've created playlists with videos, you can browse them by selecting Video Playlists. Otherwise, select the type of video file that you want to play. You may select from Movies, Music Videos, TV Shows, and Video Podcasts. If you select Movies, you'll see a list of all movies on your iPod, and you may select the one that you want to watch. In contrast, the Music Videos, TV Shows, and Video Podcasts menus are broken down into submenus. When you choose Music Videos, you'll see an Artists list. Within each artist's submenu, you'll see a list of all that artist's music videos that are stored on your iPod. When you select TV Shows, you'll see a list of programs. When you select a program, you may choose from a list of that TV program's episodes. Video Podcasts work the same way. Select the program first and then the episode. Once you start playing the video on your iPod, you can play, pause, fast forward, and rewind the video the same way you would with a music file.

Once you've configured iTunes to manage your photos and videos the way you like, you're ready to carry your favorite photos on your iPod and watch your favorite music videos, movies, and TV shows on the go. ■

BY KYLEE DICKEY

Learning Linux

Talk Birdy To Me

Ah, June—the season of grilling, baseball, and, for you Independence Day early birds, cracking into your 4th of July fireworks stash a little early. And speaking of birds, it's time for this month's penguin-powered look at everyone's favorite “other” operating system. This time, I'll be exploring open-source instant messaging.

I remember my first experience with IMing. I maintained online contact with most of my friends via MSN Messenger but conversed with my fellow “geek elite” over ICQ. For some reason, AIM (AOL Instant Messenger) never appealed to me.

The number of instant messaging programs has exploded. MSN Messenger became Windows Live Messenger; Yahoo! Messenger and Google Talk grew in popularity.

Let's dig into Gaim, the instant messaging software that's preinstalled on Ubuntu. Gaim is a multiprotocol client, which means it's capable of working with several other instant messaging applications; you can IM your grandson who uses Google Talk or your sister who uses Yahoo! Messenger. Open-source interoperability is a beautiful thing.

To set up Gaim on my Linux PC, I clicked Applications, Internet, and Gaim Internet Messenger. This launched Gaim's initial window. Gaim boasts a relatively clean UI (user interface), with a drop-down menu to switch among your various accounts, a password box to enter an account's respective password, and the following three buttons: Accounts, Preferences,



and Sign On. Of the three, Sign On is the most self-explanatory. Preferences is full of options to customize your Gaim experience; you can discover these on your own Ubuntu adventures.

We'll focus on the Accounts button, because it's the most important of the three for setting up your IM account(s). I resurrected my MSN Messenger account of yore, but Yahoo! Messenger, AIM, and other users should be able to follow the same process.

I clicked Accounts to open the Accounts dialog box. I clicked the Add button, which opened the Add Account dialog box. Next, I clicked the Protocol drop-down menu and selected MSN. In the Screen Name field, I entered my Hotmail email address, which is imnottelling@hotmail.com. In the Password field, I entered the password for my Hotmail email address. I used my first name in the Alias field. The Remember Password and Auto-Login options will sign you in faster, but I wouldn't recommend them if you share your computer. When I was finished, I clicked Save in the Add Account dialog box and Close in the Accounts dialog box.

Because I had only entered information for my MSN Messenger account, it was the only option that appeared in Gaim's Account drop-down menu. I entered my password and clicked Sign On. Gaim loaded my MSN Messenger contacts; I didn't need to repeat the process of adding them. Of course, if you use another IM application, your mileage may vary.

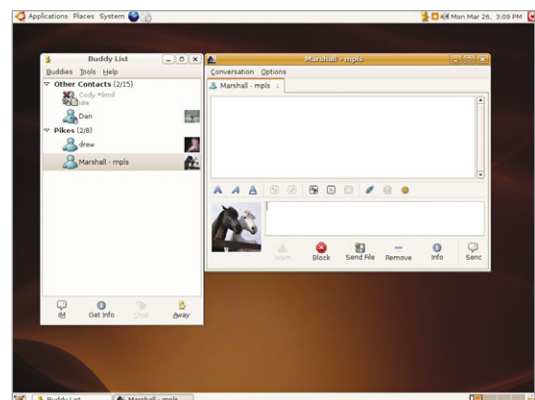
Starting an IM conversation with Gaim was just as easy using MSN Messenger. I double-clicked a contact to open a conversation dialog box. You may have to sacrifice the look and overall usability, but you won't have to give up instant messaging if you fully convert to Linux.

Ubuntu Quick Tip Of The Month

This month's lesson ran short, so I thought I'd share my experience of using a USB flash drive with Linux. If you have one of these wonders, you know that under most circumstances in Windows XP, you can remove it from a USB port. (It's still advisable to use the Safely Remove Hardware applet.)

Ubuntu's a little pickier. After you drag and drop files onto the drive, you have to right-click the usbdisk icon that appears on your desktop and click Eject. This ensures the data you added stays on the flash drive when you unplug it from the USB port. ■

BY VINCE COGLEY



If you have a basic understanding of instant messaging programs, you'll find that using Gaim is a cinch.

Cats & Dogs & Gerbils, Oh My!

Pet-Centric Sites Fido & Fluffy Will Love



Do you own a pet? If so, you're part of a very large and ever-increasing pet party. In 2006, 63% of U.S. households owned at least one pet, according to the APPMA (American Pet Products Manufacturers Association; www.appma.org).

And we don't just keep our friend as a guard dog (or cat), either. According to the APA (American Pet Association; www.apapets.org), of the estimated 45 million dog owners in the United States, nearly 70% give Christmas gifts to their canine companions, while approximately 50% give Christmas gifts to their feline friends. Furthermore, more than half of dog owners report that they are more attached to their pet than to at least one other close human—a best friend, a spouse, or a child, reports the APA.

All this devotion adds up to a lot of kibble and cat treats, not to mention monogrammed sweaters and travel beds, nearly all of which are available online (an estimated \$38 billion in pet product sales was reported by the APPMA in 2006). To these retail sites,

you can add a tail-wagging array of online services and information.

If you are an adoring pet owner, the Internet is a sunny field on a warm summer day. There are so many pet sites online that you may need to watch where you step to avoid landing in a pile of, well, you know. So grab your leash and come along as we visit some of our favorite pet-centric sites.

Bring A Pet Home

As with so many products, the pet industry has unscrupulous retailers who peddle their goods (live ones, in this case) online, and it can be hard to tell which sites are legitimate. Avoid falling prey to unlicensed breeders or miscreants who have obtained their furry charges fraudulently or illegally. Using reputable adoption resources and breeders can ensure you don't fall in love with a sick, genetically inferior, or stolen new friend.

Petfinder (www.petfinder.com). As the unofficial king of pet-and-people matching sites, Petfinder can find a new buddy whether you prefer a dog, a cat, a guinea pig, or even a slithering snake. (The company also helped lost pets find their way home after Hurricane Katrina.)

Petfinder features only “second-chance” pets, listing candidates from over 9,000 animal shelters or rescue groups in the United States, Canada, and Mexico. You can search by breed, location, age, size, and other criteria and usually see pictures of your potential pal. Don't think you can't find a purebred here, either. According to

the National Animal Interest Alliance (www.naiaonline.org), nearly 33% of shelter pets are purebreds, and breed-specific rescue groups abound.

American Kennel Club (www.akc.org). If you have your heart set on a pedigreed dog, a good place to start is the American Kennel Club, which offers breed referral resources and information on selecting a competent breeder. For cat lovers, we recommend the Cat Fanciers' Association (www.cfa.org), the world's largest registry of pedigreed cats.

Diagnose & Heal A Pet

Another big focus for pet Web sites is pet medicines. Heartgard (heartworm preventative), Frontline (flea and tick control), and other medicines are often much more expensive at a veterinary clinic than online. If you need to purchase low-cost medicines for your pet—or figure out what's wrong with him in the first place—the Internet is a great place to go.

Family Pet Services (www.familypetservices.com). This site has an interactive First Aid diagnostic database that can match your dog's or cat's ailments with potential problems.

ThePetCenter.com (www.thepetcenter.com). ThePetCenter.com has pages and pages of articles about cat and dog health care information with topics ranging from cancer to arthritis.



Find your perfect animal companion, from a sleek purebred to a lovable hybrid, at Petfinder.



With its insouciant layout and big list of posh, pro-pet digs, the Pets On The Go Web site is perfect for sophisticated four-pawed travelers.

(It also has some good, basic dog training tips.)

Vet Med Direct (www.vetmeddirect.com). This site isn't as well-known as the ones that advertise heavily, but it has excellent pricing, offers bulk packaging, and has medicines some of the more prominent retailers do not carry. (You may need a prescription from your vet for some of these.)

Learn About A Pet

Trying to decide if a pet or a specific breed is right for you? Here are some sites that can help you sort through the morass of available information.

Dog Breed Info Center (www.dogbreedinfo.com). Despite this site's name, it has information on all sorts of pets including rabbits, ferrets, hamsters, turtles, and more. However, it definitely targets dog lovers, with its Find A Perfect Dog section and accompanying breed selector test. Tell it whether you want a purebred or a hybrid (a lovely name for mutt) and provide information on your situation and attitudes, and the quiz will make matching recommendations with information on each breed. The site also offers education on ownership issues such as care, training, and breeding.

SelectSmart.com (www.selectsmart.com/pets.html). This smart shopper Web site helps you figure out what

you want in a number of categories. The Pet Selector site is no exception, offering an array of selection tests for dogs, cats, birds, and other animals, plus pet-related products such as holistic food and ID tags.

Pamper A Pet

There are many ways to spoil your canine and feline friends, from treats and toys to day spas. The sky is truly the limit in this category.

Cozy Pampered Pets (www.cozy-pamperedpets.com). Goggles for your pup's car ride, a Seamans Duffle Coat to keep your pooch dry in the rain, and a fancy Meow Town Beach House Hideaway for your little kitty; you'll find all this and more at Cozy Pampered Pets. Many items (such as dog houses with extra insulation) are practical, as well. And if this site doesn't have it, it'll try to find it for you. We've found that eBay (www.ebay.com) is also an excellent resource for pet treats, toys, clothes, and collectibles.

Find A Groomer (www.findagroomer.com). As far as we could discern, there is no directory of spas for pets. However, Find A Groomer's international database includes pet specialists offering spa services, massage services, and other pampering activities. Of course, it also has an exhaustive listing of dog groomers, including mobile and house-call groomers.

Take A Pet With You

The percentage of pets that travel with their owners is high and growing. According to the American Animal Hospital Association (www.aahanet.org), two-thirds of pet owners take Fido or Fluffy along. As you'd expect, sites that cater to four-pawed travel companions are proliferating.

DogFriendly.com (www.dogfriendly.com). One of the first and best pet travel sites is DogFriendly.com. While you can find lodgings here that will let your pet rest his weary head, the site's focus is really on lifestyles. Search for

off-leash parks, dog-friendly beaches, campgrounds, and city guides; discover dog-loving employers; explore immunization, quarantine, and airline transport policies; and more.

Pets On The Go (www.petsonthego.com). With an exhaustive listing of pet-friendly lodgings, including private rentals, this site has one of the best lodging databases around. Pets On The Go elevates the traveling pet to the status of celebrity, with profiles of specialty resorts that cater to pets, luxury travel items, and more.

Train A Pet

It's serious and important business to train your pet. You'll find some valuable basic training information and systems online, but don't forget to ask for the recommendations of friends and your vet, as well.

SitStayFetch (www.sitstayfetch.net). Positive comments about New Zealand author Daniel Stevens' training system are all over the Internet, giving us a reasonable level of comfort with his book "SitStayFetch," and he offers a 60-day, money-back guarantee. Best of all, you can sign up for his free training tips newsletter.

Canines.com (www.canines.com). This site is unabashedly pro-dog (and pro-rescue), offering an array of resources and tips on training, resolving behavioral issues, and other important concerns. Head to the Canine Library (canines.com/library/index.shtml) and click the Behavior And Socialization Tips link to check out Canine Behavior Solutions.

There are many, many more pet sites online. These will get you started, although you may find other favorites in your online travels. One more thing: If you come home to discover someone has attempted to order cat treats in your absence, visit www.bitboost.com. The company manufactures PawSense, a program that blocks feline keyboard input. ■

BY JENNIFER FARWELL

WEB TIPS

Enhance Your Time Online

Financial 411

Problem: I'm trying to pay down my debt. I'd like to know how best to research rates on different credit cards, loans, and whatever else might help.

Solution: The best tip for paying down debt is to not give up: Keep paying minimum payments (put off that plasma TV purchase), fight to keep those credit card rates down (switch cards for promotional rates), and mostly, stay informed. On that last point, visit Bankrate.com (www.bankrate.com), an impressive portal for money matters. In addition to a ton of financial calculators, you can read numerous advice articles and find comparative rates for mortgages, CDs, student loans, and credit cards. Beware the ads at the top of the page, right below the tabs—many are disguised as site features that take you to a paid site.

Live Music Alert

Problem: I hate it when my favorite band comes to town, and I only find out after the show. How can I stay on top of live music events without checking the tour calendars on a bunch of sites?

Solution: If you live in one of the 25 or so cities that the Tourfilter Web site (www.tourfilter.com) services, you are in live music luck. Tourfilter is a rather

basic service that scours the sites of local music venues and posts the collective listings by date. You can enter your favorite bands and see if they pop up in any of the listings, or if you want to be proactive, sign up for a free account: The site will email you when your bands are coming to town.

Find A Contractor

Problem: I usually hire handymen based on a neighbor's tip, but I have an upcoming project for which I have no recommendation.

Solution: If you're serious about home repair, consider Angie's List (www.angieslist.com). This online community of contractor reviews and ratings is available in about 150 U.S. cities, and accessing the larger cities requires a membership fee (available as low as \$4.95 per month plus a \$10 sign-up fee). Still, the info seems well worth it, and some companies offer discounts for Angie's List members.

Volunteer Me

Problem: I've decided to make the time for community service work, but I'm having trouble deciding where to volunteer.

Solution: Finding the time to volunteer may be hard, but finding an organization that needs your help

The screenshot shows the Bankrate.com homepage. At the top, there's a navigation bar with links like 'News & Advice', 'Compare Rates', and 'Calculators'. Below this, there's a section for 'Get Low Rate Mortgage Quotes' with a form to enter property state, existing mortgage balance, and loan type. The main content area features a 'TAXES' section with a 'Taxpayer alert!' about dirty-dozen tax scams, a 'COMPARE RATES' section for mortgages and home equity loans, and a 'CALCULATORS' section with links to various financial calculators. There's also a 'SPOTLIGHT' section with 'SPECIAL SERIES' on financial literacy and credit cards.

Bankrate.com offers a multitude of money-matter info and advice.

is easy. Just go to 1-800-volunteer.org (www.1-800-volunteer.org) and select your area of interest and your location. Nonprofits post opportunities on this site, and local volunteer centers managed by the Points of Light Foundation (www.pointsoflight.org) check them out.

What Once Was Lost . . .

Problem: I want to reconnect with a long-lost friend. Is there an easy way?

Solution: It's as easy as clicking over to Long Time Lost (www.longtimelost.com). This free service is particularly innovative

because it doesn't require both parties to be on the same service (like Classmates.com does). Long Time Lost works like this: You enter a search for an old friend. What you're really doing is creating a Web page that search engines can index. When your friend does a "vanity search" (enters his own name into Google, which Long Time Lost believes everybody does), your page comes up in the results. Now it's up to your old friend to contact you. As of this writing, its success rate is about 2%, but you have to admit that if it works, it's pretty cool.

Long Time Lost

Try this next-gen site to reconnect with old friends. It might just be better than a classified ad.



Buy & Sell

eBay

www.ebay.com

If you haven't used eBay lately, you're missing out on some great new buying and selling tools from the Web's best-known online auction site. We're particularly fond of the new eBay Deal Finder (dealfinder.ebay.com), a search engine that hunts for low-priced, nearly complete auctions. It's a good way to find deals before the auctions expire, and it automatically weeds out the sorts of auctions you don't want to waste time with (such as auctions that have unusual shipping fees, reserve prices, or other costs that push the price above the price limit you've chosen).

Craigslist

www.craigslist.org

Despite Craigslist's lack of glitz and glam (it doesn't have nearly as much personality as the always-colorful eBay), it has a massive following of happy buyers and sellers. Craigslist offers classifieds, rather than auctions, which means that if you find an item you'd like to buy, you'll need to contact the seller directly to work out the pricing and transaction. Once you sign up for a free account, you can create For

Sale/Wanted postings (these are also free) for a variety of items, including boats, bicycles, cars, clothing, musical instruments, tools, and more. The site lets you browse postings by city, so you can find items in your hometown.

GarageSaleHunter.com

www.garagesalehunter.com

Whether you're a garage sale enthusiast or you cruise garage sales every weekend to find items that you later sell online, you'll find GarageSaleHunter.com to be a handy tool. The site accepts garage sale postings from people across the country and lets users search for sales in their areas. You can search for garage sales by date, state, or item type, such as computer equipment, tools, or toys. Posting your own garage sale listing is a breeze: Once you fill out some basic information about the sale, your listing is added to the site.

GarageSaleSource.com

www.garagesalesource.com

As with GarageSaleHunter.com, this site complements its garage sale listings with plenty of perks, such as links to maps of garage sale locations. GarageSaleSource.com also includes garage sale tips and news and lets users keep up-to-speed on site happenings via an RSS (Really Simple Syndication) feed. When you post your free listing, it will have a chance to appear on the main page, which is a neat feature. The site includes a garage sale sign builder, which lets you input your sale information to create an 8.5- x 11-inch sign. You can then print the sign onto standard paper.

PackagingSupplies.com

www.packagingsupplies.com

If you sell items online regularly, you'll probably need to invest in more than a few rolls of packing tape, as well as padding materials, labels, and many other items. Enter PackagingSupplies.com, which offers everything you'll need to ship your goods. The site offers packaging items in small and large quantities and even has the equipment you'll need (such as steel strapping) to package particularly heavy items. Food sellers will also find special food shipping containers.

Yahoo! Auctions

auctions.yahoo.com

eBay isn't the only auction Web site on the 'Net. Yahoo!'s massive Shopping section also includes an Auctions area that handles the same types of items that eBay covers. You'll find plenty of auctions for books, computers, sporting equipment, and toys. The site breaks items into several categories and subcategories and lets sellers add those all-important product pictures. You can browse listings without a Yahoo! ID, but you'll need to create one if you plan to buy or sell items. To that end, the main page includes a Getting Started section that walks you through the sign-up process and helps you find your way around Yahoo! Auctions.

uBid

www.ubid.com

This popular site has an unusual auction model: Rather than let members auction items to each other, uBid auctions many of the items itself (it also certifies certain vendors to sell items). Thanks to this model, you'll find that many of the items on the site include warranties and are shipped directly from a uBid warehouse. The site handles all of the products you'd expect to find at other sites and sorts the items by category. We like the My Page area, which lets you keep track of bids, access your account, and check out uBid tools, such as Auction Alerts.

That's News To You

Finding the appropriate Usenet discussion group to match your interests can be a monumental task. So each month, we scour tens of thousands of newsgroups and highlight ones that delve into popular topics. If your ISP (Internet service provider) doesn't carry these groups, ask it to add the groups to its list. This month, we open up shop.

[alt.marketplace.books](#)

If your local bookseller doesn't have that obscure book you've been hunting for, check out this marketplace group. You'll find plenty of books that probably don't sit on Barnes & Noble's shelves.

[alt.marketing.online.ebay](#)

This group offers a mix of ads and posts from users who have questions or concerns about eBay. Users here rail against sneaky seller tactics and warn each other about potential scams.

[rec.bicycles.marketplace](#)

Members of this group buy and sell bicycles and bicycle parts. As you should with any group that lets individuals sell goods, keep an eye out for potential scams.

Share The Wares

Some of the best apples in the online orchard are the free (or free to try) programs available for download. Each month we feature highlights from our pickings. This month, we try out a buyer's auction-watching program.

Auction Watch GD 3.11

www.auctionwatchgd.com

If you shop often at eBay, you know it can be difficult to keep track of all of the items on which you're bidding or thinking about bidding. Thanks to eBay's Items I'm Watching tool, you can track multiple auctions on a single Web page, but if you want to work with other applications, you'll quickly find that pulling up the Web page every few minutes is a distracting task.

Enter Auction Watch GD, which is a gadget that integrates with Google's Desktop Sidebar. Both of these programs are free. The Google Desktop has a Sidebar tool that is located at the side of your screen, next to any windows you open. The Sidebar holds several gadgets by default, including one that displays pictures from your hard drive. The Auction Watch GD gadget displays eBay items that are on your eBay account's Items I'm Watching list.

Installing Auction Watch GD and Google Desktop doesn't take long. Click the Download Google Desktop link on Auction Watch GD's main page and then download and install the software. Once the installation completes, you'll see a small, multicolored icon in the System Tray (near the Windows clock). Click the icon and then select Sidebar when the menu appears. The Google Desktop Sidebar will appear on the right side of your screen. Now you're ready to install Auction Watch GD.

Download Auction-watch-3.11.zip. This folder is compressed, which means you'll need to extract its files before you can use them. To do this, right-click the folder and then click Extract All. Click Next when the Extraction Wizard appears. By default, the wizard's Select A Destination tool is set to create a new Auction-watch-3.11 folder on your Desktop that contains the extracted files. Click the Next button and then click Finish.

Open the Auction-watch-3.11 folder and then double-click `gadget.gmanifest`. Click the OK button when the Google Gadget Installation window appears. At this point, the Auction Watch GD gadget will appear at the top of your Google Desktop Sidebar. Run your cursor over the top of the gadget until the Menu button appears (you'll see an arrow that points downward). Click it and then click Refresh. Your eBay watched items list will appear in the gadget window, complete with pictures. ■



Use your Google Desktop Sidebar and the Auction Watch GD gadget to keep track of eBay auctions. The Sidebar lets you glance at auction statuses without opening your Web browser.



Vista: Cool. Stable. Unnecessary.

One question I'm frequently asked (in addition to, "Will you be leaving soon?") is how to make large digital photos smaller for emailing. Sure, you can use a fancy-shmancy graphics editor, but who needs more software? The next time you need to resize a photo or other graphic, try the free, Web-based service at www.shrinkpictures.com. The process is a snap: Locate the image on your computer, select its new size and output quality, and click Resize. Faster than you can say, "Honey, I shrunk the pix," you'll have your resized image. Original images can be JPEG, GIF, PNG, and up to 6MB in size, which is technically known as a "big honker."

If you're seeking a three-dimensional cerebral exerciser—and who among us isn't—you won't want to miss Cognitive Labs' Curve Ball (tinyurl.com/y769rz). Click Start Game and then left-click to serve the ball. Using your mouse pointer as a paddle, the objective is to return the ball, in racquetball fashion. Don't be lulled into a false sense of smugness by wimpy Level 1 play. My competition became so ferocious that I got a nosebleed and had to be medicated.

For Gmail users who have been left reeling by the disconcerting appearance of another email program when a Web-based email link has been clicked, or who have been confronted by the message, "Can't perform operation because default mail client is not properly installed," help is at hand! To resolve this grotesquely unacceptable situation, install the Gmail Notifier (tinyurl.com/g5pcy) and then right-click the Notifier icon in the System Tray and select Options. Place a check in the box next to Use Gmail For Internet Mailto: Links and click OK. Presto! The Notifier, as its name suggests, will also notify you when new Gmail messages arrive.

Instant Messaging aficionados won't want to miss Meebo (www.meebo.com), a one-stop Instant Messaging center. Using Meebo, you can IM from anywhere, to anybody, using any computer. It doesn't matter if your friends are using AIM, Yahoo!, MSN, Google Talk, ICQ, Jabber, or just about any other instant messaging service. Meebo is entirely Web-based, so there is nothing to download or install. Even better, it's free!

I've been using Vista Ultimate since it made its commercial debut on January 30, and overall, I've found it to be a good, stable operating system. But I keep asking myself, "What's the point?" I was blissfully happy with my Windows XP and Kubuntu (Linux) machines, and I still have both.

Vista is nice, and it's graphically impressive, but there just aren't any features that I consider life-altering. So while I'm not unhappy with Vista, I just wouldn't recommend going out of your way to get it unless you A) are simply curious, or B) purchase a new PC that already has it installed.

My favorite graphical feature is Vista's Flip 3D.

If you have multiple windows open, hold down the Windows key and press TAB.

Vista cascades each open window as if they were suspended in air. Continue pressing the TAB key until the window you want to access moves to the front of the pack, then release the Windows key. You're not going to hear the Hallelujah chorus when using this feature, but it never fails to garner a "Groovy, man!" response when I show it to my friends in the commune.

From a functional perspective, Vista's search capabilities, undoubtedly influenced by Google, are impressive. To find anything, use one of the omnipresent Search fields. Start

typing the first few letters of a word, name, or phrase and as you continue typing, the file or feature you're seeking magically ascends to the top of the search results list.

I was despondent when I initially discovered that Vista had jettisoned my beloved Start, Run command. I mean, what's the point of living if you can't Msconfig? Mrs. Modem, sensing my distress, saved my life by coaxing my head out of the microwave. When I returned to the keyboard I discovered that the Run command is disabled by default, but that it can be returned to its rightful place by right-clicking the Start menu, selecting Properties, the Start Menu tab, and then the Customize button. Then scroll down and place a check mark beside Run Command. Even easier, press the Windows key and the letter R (for Run).

I'll be sharing a number of Vista tips in the months ahead, but if you have a favorite tip, trick, or feature, if Vista brought you spiritual peace, or conversely, if it's ruined your life, send me an email and tell me all about it. I'm Sigmund Fraud, and *mi sofa es su sofa*. ■

BY MR. MODEM

Mr. Modem, (Richard Sherman) is an author, syndicated columnist, radio host, and publisher. "Mr. Modem's Weekly Newsletter" provides personal responses to subscribers' computer and Internet questions, plus weekly computing tips, Web site recommendations, virus alerts, hoax warnings, and more. For additional information, visit www.MrModem.com.



Tech Support Center

So you've decided you need new equipment and that you're going to install it yourself. Where do you start? Do you have all the information you need? Before taking on your next computing project, be sure to check out SmartComputing.com's Tech Support Center for some guidance. There you'll find the How To Install . . . Just About Anything section and learn how to install everything from hardware and hard drives to sound cards and wireless networks. At the bottom of each article you'll find a subject search where you can find more relevant articles from our editorial database. Finding the information is easy!

1. Go to www.smartcomputing.com and click the Tech Support Center link.
2. Scroll down until you come to the How To Install . . . Just About Anything section and click the link.
3. Click the component you want to install, and you will be taken to a full-text article that gives you a comprehensive how-to.



Don't forget to check out other helpful areas of the Tech Support Center, including Preventive & Regular Maintenance and Driver Education. Preventive & Regular Maintenance takes an in-depth look at

simple things that keep your system in tip-top shape, while Driver Education will show you how to keep your drivers up-to-date to ensure that your PC whizzes along smoothly. Find everything you need today at SmartComputing.com's Tech Support Center!

How To Install

General

[How To Install A Multiboot System](#)
[How To Install Applications](#)
[How To Install Hardware](#)
[How To Install Linux](#)
[How To Install Office 2003](#)
[How To Install Windows XP](#)

Storage

[How To Install CD & DVD Drives](#)
[How To Install External Storage Devices](#)
[How To Install Internal & External Hard Drives](#)
[How To Install RAID 0](#)
[How To Install RAID 0+1](#)
[How To Install RAID 1](#)
[How To Install RAID 5](#)
[How To Install Tape Drives](#)

Components

[How To Install A CMOS Battery](#)
[How To Install A CPU](#)
[How To Install A Motherboard](#)
[How To Install A Power Supply Unit](#)
[How To Install Ports & Expansion Cards](#)
[How To Install RAM](#)

Networking/Communications

[Simple 2-PC File & Printer Sharing Networks](#)
[How To Install A Dial-Up Modem](#)
[How To Install A Wireless Network](#)
[How To Install Desktop PC NICs](#)
[How To Install DSL & Cable Modems](#)
[Set Up A Small Wired Network](#)

Cooling/Monitoring

[Temperature Gauges](#)



In honor of Flag Day this June, use some flags to organize your Outlook 2003 email.

Open a message, go to Actions and Follow-Up, and then choose a colored flag. When the message no longer needs to be flagged, simply select Clear Flag.



The last day of school is exciting for students and teachers alike. The word "pencils" appears on SmartComputing.com about 50 times, "books" pops up 2,300 times, and "teachers" shows up 309. "Dirty looks," however, makes just a single appearance.



Make like a clairvoyant—take a peek at next month's articles. You'll find several every week in the SmartComputing.com Daily section for your viewing pleasure.

From *Smart Computing's Dictionary*

utility

Software designed to perform certain housekeeping tasks, such as those related to managing system resources (such as drives and printers) and file capabilities (such as sorting and copying). Utilities also can be used to diagnose a problem on a PC. Utilities are usually installed as memory-resident programs permanently stored in memory.

MAKE IT YOUR OWN

TWEAKING VISTA

- 56** **AN OS UNLEASHED**
Comparing Vista-Compatible
System Utilities
- 59** **TROUBLE IN PARADISE**
Tips For Solving Vista's
20 Most Common Problems
- 63** **MAKE YOURSELF AT HOME**
Get Comfortable With
Vista's Control Panel
- 67** **VISTA'S SECURITY TOOLS**
The Windows Security
Center & Its Safeguards

Isn't it great to get something new? Everything is clean and fresh. There are no broken buttons or missing parts. And it's exciting learning just how things work, setting up every detail to your liking. In fact, customizing a new purchase can be almost as much fun as its intended use, especially when you have lots of options.

Microsoft's latest operating system is the newest "toy" on many computer users' minds—and desks—these days. If you've already had a chance to play around with Vista, you may have discovered that it offers a nice blend of old and new. The new Aero interface offers a fun and functional twist on working with Windows, but isn't so different as to require a lot of relearning. The Start menu is arranged a bit differently, but the changes aren't hard for a Windows user to figure out.

That's not to say that Vista doesn't offer plenty that's new, both in terms of features and layout. The blend of old and new just means you can spend more time making the OS (operating system) your own instead of figuring out where your files are. While Vista certainly isn't the first of Microsoft's operating systems to allow users to customize their computing environment, it is the first to dedicate a whole section



to the task in the Control Panel. The Personalization icon in the Control Panel opens a window where you can customize to your heart's content. The categories are familiar, allowing you to change the Desktop background, window color and appearance, mouse pointer settings, and so on. Read more about the Vista Control Panel on page 63.

One of the most highly touted benefits of this new operating system is its security. Microsoft has included many features to make Vista more secure, and to be sure, you can hardly access any program without having to click through a User Account Control dialog box to confirm the request. Such things as more parental controls, built-in spyware and malware protection, and a dedicated Security Center help the cause. Read more about Vista's built-in Security Center on page 67.

With so much focus on security, you may worry that Vista is a bit on the drab side. But Microsoft has also given plenty of consideration to applications and enhancements that are both useful and fun. By default, Vista includes the Windows Sidebar, which is an information pane you can auto-hide or place on any edge of the Desktop. Windows Sidebar is a great way to keep your eye on important

details while working or the perfect spot for a quick game when you need a break. The Sidebar comes with a set of default Gadgets, but downloading more is a snap. Truly a personalizer's paradise, the Sidebar offers a smorgasbord of choices. You can

add system monitors to keep an eye on battery life and CPU status. Or add a calculator or calendar to the Sidebar. You can choose from different styles of clocks, many that will display times around the world, and even add a Gadget that will keep you apprised of the moon's phases. Read more about these and other third-party utilities that enable Vista enhancements on page 56.

Sure, all this sounds like fun, but some of you are bound to be grumbling in the background, wondering when the other shoe is going to drop. Thus far in its short life, Vista has received a warm welcome from most reviewers, but that's not to say you'll never have any trouble with it. A new OS release is always accompanied by



Just right-click the Windows Sidebar to add default Gadgets or download more online.

patches and bug fixes, and an OS with so many changes and new hardware requirements is almost sure to have its share of growing pains. Like Windows XP, Vista has its own troubleshooting wizards aimed at helping users solve problems for themselves. Find out more about these wizards and get other troubleshooting tips on page 59.

Eventually, much of the excitement surrounding Microsoft's latest OS will die down, and users will settle into a comfortable pattern with Vista. After exploring and learning, fixing and changing, each user will have his or her own little version of what it means to be a Vista user. ■

BY JENNIE SCHLUETER



AN OS UNLEASHED

COMPARING VISTA-COMPATIBLE SYSTEM UTILITIES

Several of the top utility suites are now available in Vista-compatible versions, but you really need to know what you're getting into before settling for one of them.

One of the downsides of a new Microsoft OS (operating system) is that system utilities fine-tuned for previous editions of Windows don't tend to work well—or at all—with the latest OS. Even small changes in file systems, Registry settings, and other aspects of Windows that utilities like to tweak can render the utility useless, and then there are the programs that just plain refuse to work with Vista at all.

Several of the top utility suites are now available in Vista-compatible versions, but you really need to know what you're getting into before settling for one of them. Some focus more on security than on utilities, others that worked great under Windows XP aren't fine-tuned enough to be of great use in Vista, and then there are those that are simply too powerful and dangerous for Vista beginners to cut their teeth on. It's a bit like Goldilocks and the three bears, but as long as you know what type of porridge you prefer, we have some great recommendations.

Iolo System Mechanic Professional 7

\$69.95

www.iolo.com

System Mechanic Professional 7 offers a variety of security tools and system utilities in a single package.

Although the main System Mechanic 7 utility serves as the core of the suite, you also get Iolo Antivirus, Iolo Firewall, DriveScrubber 3, and Search & Recover 4 out of the deal.

The system utilities worked well for the most

part, but there were some inconsistencies. After the initial system analysis was complete, we repaired a variety of problems, including clearing hard drive clutter, removing some spyware, and cleaning up the Registry. This can be done automatically by clicking a Repair button in each general category or manually by clicking the arrow next to each Repair button and selecting that option. We also had no trouble managing startup programs, customizing a variety of Vista settings, and doing handy stuff such as automatically alphabetizing the Start menu.

DriveScrubber 3 and Search & Recover 4 are standalone utilities, but both are accessible directly from the main System Mechanic 7 interface. They are designed to perform completely opposite duties, as Search & Recover 4 scours the hard drive for files you accidentally deleted, while DriveScrubber 3 permanently erases deleted files. Search & Recover works well and comes with a variety of filters so you can search for particular file types. Be prepared, however, to sift through a long list of deleted Internet history files to find the stuff you want. DriveScrubber 3 overwrites files or empty space on your hard drive using random data—this effectively eliminates any trace of the files that were there, so utilities such as Search & Recover 4 can't even retrieve them. It's not something that most people will need to use very often unless they are up to no good, but it's a nice tool to have if you are selling or donating an old PC and want to make sure none of your personal info ends up in the wrong hands.



The main problem with System Mechanic 7 Professional is that analyzing the computer immediately after the repairs were completed often uncovered new problems. No other programs had been opened or used between completing the repairs and performing the follow-up analysis, so nothing on the test PC should have changed, but it took several repair sessions before the software reported that everything looked good. Catching everything in a single pass would speed the process immensely.

Symantec Norton 360

\$69.99

www.symantec.com

Say goodbye to Norton SystemWorks and hello to Norton 360, Symantec's completely revamped security and utility package. The new interface is streamlined almost to a fault, offering easy access to the major tools but requiring numerous of mouse clicks and wading through a lot of pop-up windows to drill down to some of the more advanced components.

The focus here is mainly on security, with Norton AntiVirus and Norton Firewall protection built in along with an anti-phishing filter that plugs into Internet Explorer to tell you whether each page you visit is legitimate. These tools work just as well as they have in the past and don't require much manual intervention. This is thanks to automatic updates, making this package a decent deal if you're looking for subscription-based security, but the system utilities are somewhat weak.

Backup And Restore works just like the name says, letting you establish a backup schedule (or perform backups whenever the PC is idle). There are a variety of preconfigured categories, such as Pictures, Financial Files, and Emails, that you can add to the queue by checking boxes next to them, or you can manually add particular files

or folders. You then select a backup location (such as a recordable DVD, external hard drive, or Symantec's secure online storage service [2GB of storage space are provided in the price]), and create a schedule—Norton 360 handles the rest. The interface is very simple to use, and the only downside is that it wouldn't let us select multiple backup locations. It would be nice, for example, to back

hard drive. Vista already comes with tools that can do all of that stuff, making PC Tuneup a redundant let-down. Norton 360 is a big step forward for security suites, but if you're looking for the best system utility suite, there are much better options.

Totalidea TweakVI

Free (Basic Edition); \$29.99 (Premium 12-month subscription); \$39.99 (Ultimate 12-month subscription)

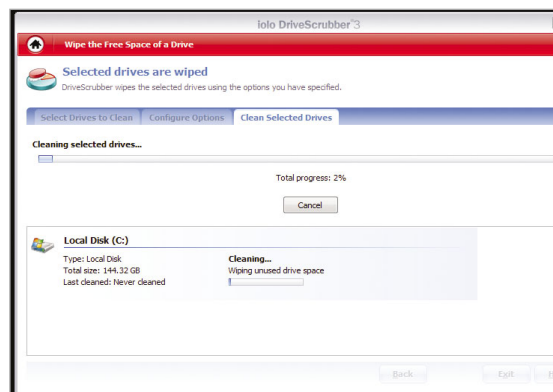
www.totalidea.com

TweakVI, as the name implies, focuses on a variety of system tweaks and optimizations that let novices change settings that are a pain to adjust using Vista itself. The interface is mercifully basic, breaking the tools into a number of categories on the left that can be clicked to reveal related subcategories on the right. Each of the subcategories represents an individual plug-in module, and while the free version comes with a handful of plug-ins, you can unlock and download more advanced plug-ins by upgrading to one of the paid subscription plans. Subscribers also gain access to a one-click Auto Optimize tool that lets beginners get the most out of Vista without having to read through hundreds of individual settings.

One of the things TweakVI does best is to put related settings in one spot. Adjusting all aspects of the Desktop using Vista requires opening a number of windows, navigating through

a variety of tabs, and dealing with pop-up windows to make adjustments. TweakVI puts all of this in one place and also lets you do things that normally require making manual Registry tweaks. Even the free edition is very useful, and subscribers get a comprehensive system utility that incorporates a bulk file renamer, a file shredder, Internet optimizations, and other tools.

A program that can do so much can be kind of scary if you aren't sure what



DriveScrubber 3 operates like a standalone application but is launched directly from the System Mechanic 7 Professional interface.



You can tweak nearly every aspect of Vista using TweakVI.

up all files to an external hard drive but also back up smaller files (such as financial and office documents) to the secure online storage site. (It will back up to a network or flash/removable storage devices.)

The other major system utility component is PC Tuneup, which is extremely basic compared to competing tools. All it does is clean up the Internet History, delete Internet and temporary files, and defragment the

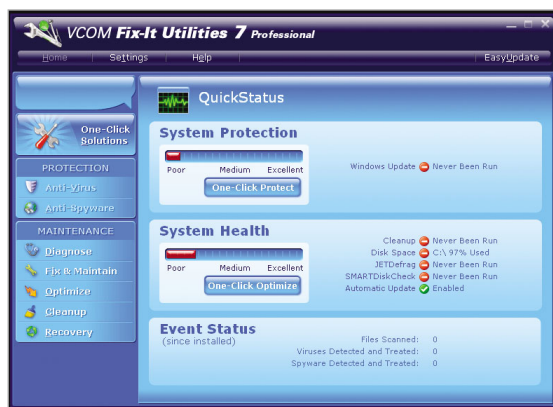
you're doing, but most settings are described in detail, and it's possible to create snapshots of existing settings in each major category before tweaking begins. If an adjustment causes problems, reverting to the older settings is easy. Settings that aren't represented in the Restore Settings section can be backed up and restored from their respective plug-ins. TweakVI is powerful enough that indiscriminate tinkering is not recommended, but there are lots of options to undo damage if things go badly.

VCOM Fix-It Utilities 7 Professional

\$49.95

www.v-com.com

Fix-It Utilities 7 Professional is another all-in-one suite that comes with a ton of tools, including a complete antivirus and antispyware security package. The system utilities are very complete and include a startup manager, Registry cleaner, file eraser, and file undeleter, among many others. The main interface is intuitive, and a One-Click Solution section provides



access to a number of related tools for novices who don't want to manually tinker with each individual utility.

The antivirus and antispyware packages are intertwined to the point that you can't install just one, so when the antivirus package was deselected during installation, it made it impossible to use the antispyware utilities. We also had some trouble with the startup manager, which is too aggressive at flagging programs as viruses.

As long as you're willing to take some of its alerts with a grain of salt, Fix-It Utilities is among the better all-inclusive security and system utility suites.

FixIt Utilities has a good interface and a lot of features, but some of the false-positives it reported might confuse Vista newcomers.

Best Of The Best

Based on our tests, Norton 360 is recommended if you need a security tool, but you'll need a system utility to make up for its weak tools in areas other than security. System Mechanic 7 Pro is a much better all-in-one security and utilities suite, but its inability to detect all problems in a single pass makes it difficult to work with, and Fix-It Utilities 7 Professional is a good all-around suite with some caveats. For tweaking and tuning, Tweak VI is by far the easiest to use, and most people will only need the tools available in the free edition. Don't forget that Vista comes with a lot more adjustability out of the box than did WinXP, and you may want to explore its capabilities before trying out a system utility. ■

BY TRACY BAKER

Can't Run It? Try Compatibility Mode

Windows Vista comes with compatibility tools that let it attempt to fool programs into thinking they are running on an earlier version of Windows. In our tests, programs that failed to start at all in Vista still refused to work regardless of the compatibility mode we selected. However, there's no way we can test everything, so if you want to try it with some of your broken programs, the process is very easy. Right-click the shortcut or the startup icon for the problematic program, click Properties, and select the Compatibility tab. Check the

Run This Program In Compatibility Mode For box and use the drop-down menu to select a version of Windows that you know is compatible with the software. Click Apply, run the program, and see if it worked. You can also mess with options in the Settings box to try to find a combination that the program finds acceptable.

Some programs that are supposed to be compatible with Vista but refuse to start might run in Administrator Mode. Perform the steps outlined previously to get to the Compatibility tab and

check the Run This Program As An Administrator before clicking Apply. For example, while Microsoft hasn't stated that it will release a version of the popular TweakUI utility for Vista, it is possible to run the Windows XP version of TweakUI by downloading it from www.microsoft.com/windowsxp/downloads/power toys/xppowertoy.mspx, installing it, and making sure the Compatibility Mode is set to Windows XP Service Pack 2 and the Administrator Mode is enabled.

Using Compatibility Mode and Administrator Mode are good ways to get

software working before official Vista support is added, but forcing system utility software to work isn't always a good idea. Utilities generally work with Windows on a much lower level than do applications like games and office suites, and messing with things like the file system using a defragmentation utility or the virtual memory area using a memory manager likely won't work well until a version of that software is released that specifically supports Vista. ■

TROUBLE IN PARADISE

TIPS FOR SOLVING VISTA'S 20 MOST COMMON PROBLEMS

Many Vista users encounter problems with Adobe's Flash technology, which is required to display certain content on some Web pages.

For all of its glam, glitter, and nifty usability enhancements, Windows Vista remains an infant in the operating system world, and with that infancy comes trouble. Working out Vista's kinks can consume time and takes away from their enjoyment of this innovative new OS (operating system), but we're here to help.

We've compiled 20 of the top problems experienced by Vista users, along with solutions that can help get your system back on track. The instructions included for many of the solutions require User Account Control permission, so if Windows asks for your permission to continue when you attempt to access certain Windows components, click Continue.

20 Problem: Windows Media Player takes a long time to change songs.

Solution: If you're experiencing long delays between songs in Windows Media Player, and you're using the most recent drivers for your sound card, try disabling sound enhancements. Open the Sound Control Panel (click the Windows orb in the lower-left corner of your screen, hover your mouse pointer over Control Panel, and click Sound), right-click the Speakers icon, and click Properties. On the Advanced tab, deselect Enable Audio Enhancements, click OK, and restart your PC.

19 Problem: The thumbnails in one of my folders are corrupted.

Solution: In Windows XP, deleting the folder's

Thumbs.db file would force Windows to regenerate the thumbnails the next time you opened the folder. Vista does not use Thumbs.db files, but you can use the Disk Cleanup utility to delete thumbnails. Click the Windows orb, All Programs, Accessories, System Tools, and Disk Cleanup. Scroll down and click to select Thumbnails, and then click OK. The next time you open up the folder in question, Vista will regenerate the thumbnails.

18 Problem: Sleep mode doesn't function properly.

Solution: If you've configured Vista to enter Sleep mode, but your PC wakes up only a few seconds after entering that mode, your hardware might be encountering compatibility problems with Vista's new hybrid sleep mode. To disable hybrid sleep, right-click an empty spot on your Desktop, click Personalize, click Screen Saver, and click Change Power Settings. Under Select A Power Plan, click Change Plan Settings beneath your selected power plan, click Change Advanced Power Settings, click the plus (+) sign beside Sleep, click the plus sign beside Allow Hybrid Sleep, click On, and select Off. Click OK.

17 Problem: Windows won't boot without the Vista disc in the drive.

Solution: Unfortunately, Vista is highly particular when it comes to the drives that are connected to your PC during the installation process. If it detects a mix of ATA (Advanced Technology Attachment), SATA (Serial ATA), and even USB drives, the



boot configuration can get corrupted, leading to problems such as requiring the Vista disc for booting. To avoid this and other boot-related problems, connect only your primary hard drive before installing Vista and leave all other drives and memory card readers disconnected until you have successfully installed the operating system. If you've already installed Vista and now have this problem, try performing a clean Vista installation following these recommendations.

16 Problem: My USB hard drive works in WinXP but not in Vista.

Solution: Access to external USB drives appears to be a hit-or-miss affair in these early Vista stages, but there are a few tricks that could get your drive up and running. First, try updating the drivers for your USB host controllers. Right-click Computer, click Properties, and click Device Manager in the left panel. Click the plus sign beside Universal Serial Bus Controllers to expand that section and then search for any host controller listings (for example, Standard Enhanced PCI To USB Host Controller or Standard OpenHCD USB Host Controller). For each listing, right-click it, click Update Driver Software, click Search Automatically For Updated Driver Software, and select an Internet option to instruct the wizard to search online for drivers. Follow the wizard's instructions for installing the driver.

If updating drivers doesn't enable your drive, check your PC's BIOS (Basic Input/Output System) for a USB legacy support option and disable it (if you find this option and it's enabled). To enter your PC's BIOS, you'll need to repeatedly press a key as soon as you start your PC, so check your computer or motherboard manual to find out which key to press. Use the arrow keys to navigate the menus BIOS but check your motherboard manual if you're not sure where to find this setting or how to make changes. Don't alter any other settings in the BIOS, because unintended changes can have severe consequences on your PC's operation.

15 Problem: Web pages viewed in Firefox jump around the screen.

Solution: Unless you enjoy the challenge of visually chasing a browser window around the screen, this is a bug you'll immediately want to fix. This admittedly strange problem is often the result of a lack of bookmarks in Firefox's Bookmarks Toolbar Folder, so browse to a Web page, click Bookmarks, click Bookmark This Page, and beside Create In, click Bookmarks Toolbar. Click OK.

14 Problem: iTunes doesn't work with Vista.

Solution: At press time, the current version of Apple's iTunes music software was not completely Vista-compatible. A compatible version was expected to be released imminently, so check Apple's iTunes Web site (www.itunes.com) to see if this version has been released. Consider using Red Chair Software's Anapod Explorer (www.redchairsoftware.com/anapod), a capable iTunes replacement.



Apple has yet to release a Vista-compatible version of its music software. Consider downloading an iTunes replacement, such as Anapod.

13 Problem: Copying files from one drive to another take a long time.

Solution: If copying files or folders from one hard drive or drive partition to another takes far longer than it did in WinXP or another OS, make sure that Vista isn't already running another resource-intensive process when you copy the files (see the "Why

is my CPU working overtime since I installed Vista?" entry). Also, you can try disabling Remote Differential Compression, a technology intended to help sync data across different sources. Open the Programs And Features Control Panel, click Turn Windows Features On Or Off, click to deselect Remote Differential Compression, and click OK.

12 Problem: Vista can't detect my CD-ROM drive.

Solution: If you tried uninstalling your optical drive using the Device Manager and restarted your computer, and your drive still doesn't appear in Vista, shut down your PC. Next, disconnect the drive from the motherboard, start your computer, and then shut it down after it completely boots into Vista. Shut down your PC again, reconnect your drive, and then start your computer. Vista should reinstall the device driver.

11 Problem: Web browsing is extremely sluggish.

Solution: Although the Phishing Filter found in Internet Explorer 7 can help to boost security when Web browsing, it can also severely decrease performance. Try disabling the filter to determine if this tool is affecting your Web browsing. To do so, click Tools, select Phishing Filter, click Turn Off Automatic Website Checking, select Turn Off Automatic Phishing Filter, and click OK. If this solves your problem, you'll need to choose between faster browsing and less security and slower browsing and more security. If you choose the former, you can still avoid phishing even without the Phishing Filter. US-CERT, or the United States Computer Emergency Readiness Team, offers tips for avoiding such attacks at www.us-cert.gov/cas/tips/ST04-014.html.

10 Problem: I receive blue error screens when trying to install Vista.

Solution: Many people encounter few or no problems when installing Vista,

but for others, it's an exercise in pure frustration. If you're receiving blue error screens (dubbed BSODs, or Blue Screens Of Death), or black screens that display nothing at all, your motherboard's BIOS might be incompatible with Vista. Many motherboard manufacturers have released updated, Vista-compatible BIOSes that you can download and install, so check your manufacturer's Web site for an update. Before installing the new BIOS, carefully review the manufacturer's installation instructions and then follow them precisely as written, because if you make one wrong move during a BIOS installation, you can render your PC unbootable.

9 Problem: The Start menu takes forever to open.

Solution: For unknown reasons, when Vista's Start menu is configured to highlight newly installed programs, it can bog down the menu's responsiveness. To disable this setting, right-click the Taskbar, click Properties,

and select the Start Menu tab. Click the Customize button, scroll down to Highlight Newly Installed Programs, click to deselect it, and click OK.

8 Problem: The Aero interface does not run on my PC.

Solution: If your PC meets the minimum requirements to run Vista's snazzy Aero GUI (graphical user interface), but refuses to run it when selected in the Appearance settings, make sure that your graphics card is using the manufacturer's most recent drivers. Although you can update your graphics card through Vista, it's best to visit the manufacturer's Web site and download the drivers directly from the site, because hardware manufacturers generally outpace Microsoft when it comes to releasing new device drivers. Aside from outdated drivers, some users have reported that Logitech's Harmony remote software disables the Aero GUI. If you're using this software and it starts automatically with Windows,

you can prevent it from doing so using the System Configuration utility. Click the Windows orb, type **msconfig** in the Search bar, and press ENTER. Click to select the Startup tab, click to remove the checkmark beside the Harmony startup entry, and click OK. Restart your PC.

7 Problem: My entire system became sluggish immediately after installing Vista.

Solution: If anything you do in Vista seems slow after first installing it, note that its indexing service likely will run nonstop until it gathers information about the data on your hard drives. Until it finishes, you might be forced to deal with decreased performance, so leave the PC running overnight and see if you're still having problems in the morning. Alternatively, if you're using the Aero GUI, try disabling it, even if your system meets the minimum requirements to run it. To disable it, right-click your Desktop, click Windows Color And Appearance, click Open Classic Appearance Properties, choose a different color scheme, and click OK.

6 Problem: My NIC (network interface card) doesn't work with Vista.

Solution: As with any new OS, some older devices won't work properly (or at all) with Vista. If your device doesn't work, check the Vista Hardware Compatibility List (winqual.microsoft.com/hcl) to see if the device is indeed compatible with Vista. If it is, try downloading the latest drivers for the device or reinstalling it. If it isn't compatible, you'll likely need to purchase a compatible device.

5 Problem: Flash isn't working properly (or at all).

Solution: Many Vista users encounter problems with Adobe's Flash technology, which is required to display certain content on Web pages. If you tried installing Flash, but still receive messages that Flash isn't installed, navigate to C:\WINDOWS\SYSTEM32\MACROMED\FLASH,

Put The Wizards To Work

Like Windows XP, Vista includes a bevy of troubleshooting wizards that can help you locate the source of various problems and, one hopes, solve them. For the most part, these wizards operate identically

to those in WinXP, but Vista organizes them in a more logical, easier-to-navigate fashion than its predecessor and provides much of the troubleshooting information in single windows, rather than successive windows.

To access Vista's troubleshooting wizards, click the Windows orb, click Help And Support, and click Troubleshooting under Find An Answer. Here you'll find the following wizards covering a wide selection of topics:

Networking

- Troubleshoot problems finding wireless networks
- Troubleshoot problems finding computers on a home network
- Troubleshoot network and Internet connection problems

Using The Web

- Connect to the Internet
- Why is my Internet connection so slow?
- Repair Internet Explorer

Email

- Troubleshoot problems with Windows Mail
- Why can't I view an attachment?
- Send pictures or videos in email

Hardware And Drivers

- Troubleshoot driver problems
- Troubleshoot sound problems
- Troubleshoot USB device problems

Your Computer

- Turn automatic updating on or off
- Ways to improve your computer's performance

right-click Flash9b.ocx, and click Properties. Select the Security tab, click the Everyone account, click the Edit button, and click to select Allow Full Control. Click OK and then repeat the process with the FlashUtil9b.exe file. Finally, double-click FlashUtil9b.exe to run the utility. If this process does not work, or if you cannot locate those files, first uninstall Flash using the instructions located at www.adobe.com/cfusion/knowledgebase/index.cfm?id=tn_14157. Next, visit www.macromedia.com/software/flash/about and follow the instructions for installing Flash.

4 Problem: I installed a new program, and now I'm forced to re-activate Windows.

Solution: Vista allows certain hardware changes to your PC without requiring reactivation, but certain major changes, or a combination of changes, can trigger the reactivation process. However, a bug in the initial release of Vista caused reactivations when simply installing, running, or removing programs or installing drivers. You can download a patch to fix the problem from support.microsoft.com/kb/931573.

3 Problem: The Recycle Bin has disappeared from my Desktop.

Solution: One of most common problems reported by new Vista users involves the disappearing Recycle Bin, even though this component's placement and function is no different from those in WinXP. In almost every case, users accidentally delete the Recycle Bin, but that's no cause for panic, because retrieving it requires only a few simple steps. Open the Personalization Control Panel, click Change Desktop Icons in the left panel, click to select Recycle Bin, and click OK.

2 Problem: Vista takes four or five minutes to start.

Solution: For the average user, a PC running Vista should take no more than two or so minutes to boot. If you're experiencing excessive boot

times and have an external USB hard drive or USB expansion hub connected to your PC, try turning off your PC, disconnecting the drive or hub, and restarting your PC. Many users report startup delay problems with these connected devices, and in many cases, disconnecting them will solve the slow boots. With any luck, this problem will be addressed by Microsoft in a future patch or service pack.

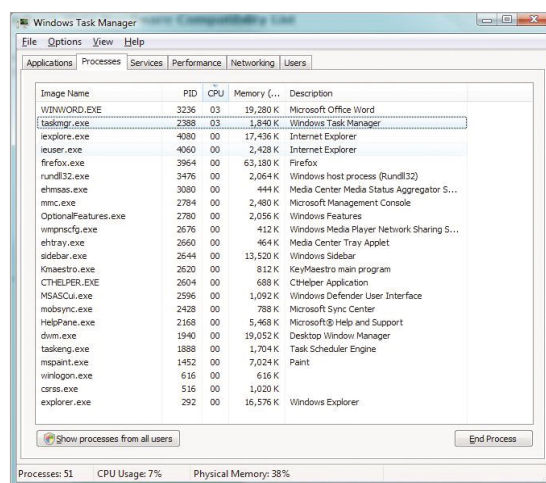
If you're dual-booting Vista and another operating system, you can also decrease the time that Windows displays the OS options before actually booting into Windows. Right-click Computer, click Properties, click Advanced System Settings, choose the Advanced tab, and click the Settings button under Startup And Recovery. Under System Properties, adjust Time To Display List Of Operating Systems to a smaller number, such as 15 seconds. Note that by doing this, you will have a smaller window of time in which to manually instruct your PC to boot either into Vista or your other OS.

1 Problem: Why is my CPU working overtime since I installed Vista?

Solution: The most common problem shared among many new Vista users is excessive CPU usage, which can quickly deteriorate overall system performance. If your PC meets the recommended requirements for Vista, but you're still experiencing slowdowns, you'll need to perform some investigative work to determine the cause of the problem.

First, press CTRL-ALT-DELETE and click Start Task Manager to launch the Windows Task Manager. Select the Processes tab to view all currently running processes (or programs) and then click the CPU column heading to organize the

processes by the amount of CPU resources they're consuming. If you discover a process that's using a high percentage of CPU or memory resources, try to determine if the program is necessary. Some Vista components must run at all times, but third-party programs aren't necessary for the core operation of Windows, so check to see if you can change the program settings so it isn't running constantly. If you can't change the settings, look for a replacement that doesn't consume as many resources.



Use the Windows Task Manager to get an instant glance at programs that could be utilizing excessive CPU and memory resources.

Mark It Down

Because Windows Vista is a new OS, hundreds of problems are practically guaranteed (not by Microsoft, of course) to crop up over the early stages of the software's existence. Many of these problems will be exclusive to certain PC configurations, so there's no guarantee that you'll find the exact answer to your particular problem if you go hunting for an answer. If you find problems not listed here and discover a solution, be sure to document that solution so you can immediately solve the problem the next time it occurs. ■

BY CHRISTIAN PERRY

MAKE YOURSELF AT HOME

GET COMFORTABLE WITH VISTA'S CONTROL PANEL

If you're familiar with past Control Panel versions, you'll immediately notice how many more options and top-level categories Vista offers.

Along with other changes built into Vista, Microsoft recently overhauled Windows' Control Panel. You probably don't use the Control Panel every day, and you might not even think about it much. But getting familiar with the new Control Panel and its expanded toolset will help you settle in with Vista, maximize system performance, and solve problems in your new OS (operating system).

Getting Around

Vista organizes the Control Panel into nine main categories (plus an Additional Options group). Control Panel Home provides access to the larger group of functions within each category, but also displays direct links to several of each category's most common tasks. Much of the Control Panel's revamp centers on the increased role played by "tasks." Control Panel tasks present configuration and troubleshooting options in terms of what users need to accomplish, rather than merely describing available technical tools. Such distinctions sound minor, but the difference between Change Desktop Background and Display Properties is anything but trivial for most users. Windows XP nested a couple tasks within each category, but Vista brings them front and center. This new approach also leads Vista to place some options in several places (Internet Options and Device Manager each sit in different categories, for example). It sounds like a strange setup, but

it doubles the odds of immediately finding the right place to change privacy settings or check USB drivers.

The Search toolbar at the screen's top right searches not only module titles, but task descriptions and keywords, as well, making it easier to find exactly what you need with natural queries. The Recent Tasks list at the bottom left displays the last handful of tasks you've used. Vista makes browsing easier by continuously adding relevant or previous options to the left pane in each module. Switching categories is as easy as selecting another from that list (rather than navigating back to Control Panel Home).

All these extra categories, subcategories, tasks, and panes might not seem like a formula for simplification, but the new layout actually does provide faster access to commonly used functions. Software and hardware vendors can also create custom tasks and modules, inserting their configuration options into Windows' Control Panel and reducing the number of places to go for system configuration. The new Search, along with access to task links and recent history, make it easier to access Control Panel tools directly, without drilling through multiple layers of menus and dialog boxes. In the spirit of Vista's focus on completing tasks rather than listing functions, we'll walk through a variety of Control Panel options. We organized each around the reasons for using the Control Panel in the first place. If you're more classically minded, see the Control Panel Hierarchy and Classic View sidebars in this article.



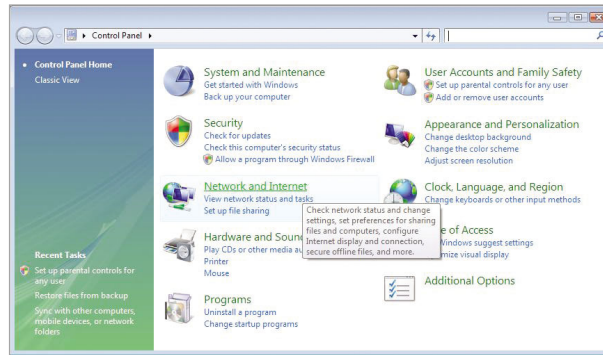
Set Vista Preferences

System And Maintenance. The largest of Vista's Control Panel categories, System And Maintenance, offers a little of everything. On the setup front, the Welcome Center helps transfer files and settings from a previous system, in addition to configuring new hardware and setting up personal display and sound preferences. System And Maintenance also provides access to the Backup And Restore Center (for scheduling regular backups) and drive partitioning utilities (under Administrative Tools).

Security. Vista's enhanced Security Tools help configure automatic updates, ensuring that you receive the latest security patches and bug fixes. Use it to set up Windows Firewall (now controlling outbound, as well as incoming, requests) or the Windows Defender antispyware utility (it's turned on by default, but you should schedule regular scans).

Network And Internet. Vista's networking category sounds self-explanatory, but you'll discover a lot more to configure than just an Internet connection. The Network And Sharing Center displays information and a status for each network connection, including Wi-Fi, VPN (Virtual Private Network), and Ethernet connections. It also provides a one-stop location to enable or disable network discovery, file sharing, and printer sharing. Review all your shared files and folders in a single list with the hyperlink at the bottom of the screen. Access the People Near Me and Sync Center tools if you need assistance with coordinating collaborative projects and synchronizing multiple devices.

Hardware And Sound. Printer, Sound, Mouse, Audio, Keyboard, and Modem configuration all take place under Hardware And Sound. Whether you're configuring new hardware or setting up preferences for devices already in use, these tasks offer everything you need. Other Hardware And Sound modules set



Vista's revamped Control Panel organizes modules and tasks into 10 categories. Each category provides immediate hyperlinks to key tasks.

Personalization module. The Taskbar and Start Menu

AutoPlay settings that determine how Windows handles CDs and other media, configure USB game controllers, and set tablet or pen options.

Programs. Vista's installation process is easier and more hands-off than previous versions, but such convenience also leaves fewer options for determining which components Windows includes. The task Turn Windows Features On Or Off helps overcome that limitation. If existing applications appear incompatible with Vista, select Use An Older Program With This Version Of Windows to launch the Program Compatibility Wizard.

User Accounts And Family Safety. Some account-related tasks are as simple as setting personal logos. Others, such as setting passwords and permissions, are more involved. Access each from the User Accounts module. User Accounts And Family Safety also provides access to Parental Controls, restricting online activities, game ratings, and time allowed on the computer.

Appearance And Personalization. If Vista doesn't set Windows' color scheme or screen resolution to your liking, change either from the

option lets you choose between updated and classic Start menu views or configure Taskbar and Quick Launch menu options.

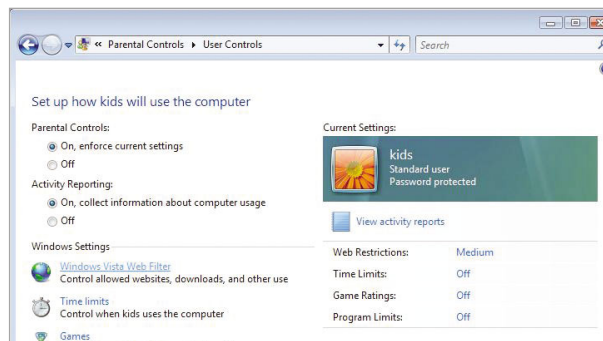
Clock, Language, And Region. The installation process sets time, date, and regional options, but you can always visit this Control Panel category to change selections.

Ease Of Access. What Windows used to call Accessibility, Vista now labels Ease Of Access. Set up display, mouse, or keyboard accommodations from this category, or launch and configure Windows' built-in speech recognition.

Improve Vista's Capabilities & Performance

System And Maintenance. Indexing Options help maximize Vista's speed and performance when searching the file system. Click Modify to index locations you search regularly and click Advanced to set options for indexing encrypted files specific file types. System And Maintenance also includes Administrative Tools (providing access to drive space, partitioning, and scheduling tools), Disk

Defragmenter (which can now run on a schedule), and the Performance Information And Tools utility (about



The Parental Controls module helps adults control children's computer usage.

which you can read more in one of our sidebars).

Security. Granting blanket access through Windows Firewall for programs you know to be safe can certainly improve your own efficiency. Making sure Windows Update is set to download and install critical upgrades immediately and automatically is crucial for Vista's performance.

Network And Internet. Vista's new Sync Center makes it easier to sync with other computers, devices, or network locations. Internet Options helps you get the most out of tabbed browsing, privacy controls, and Web-associated applications, all of which maximize the efficiency of both Internet Explorer 7.0 and your own online experience.

Hardware And Sound. Power Options are one of the most important Control Panel tools for notebook computer users. Your power settings determine how much battery life the system squeezes out of each charge and how well the machine performs on battery power. Power Options can also help desktop users manage their standby settings and control the action of their computer case's power button.

Programs. Managing Gadgets through Windows Sidebar Properties

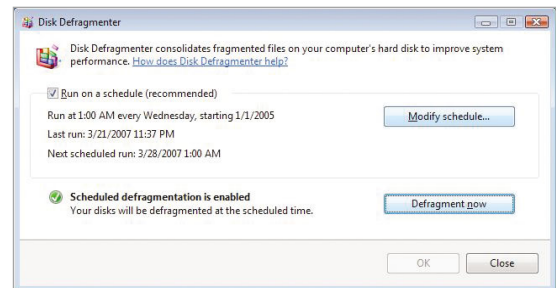
can make your life easier in all kinds of ways. Vista's Sidebar provides easy and immediate access to all kinds of nifty add-ins, including calculators, news headlines, and contact lists. For added convenience, download and install new Gadgets from this Control Panel module, as well.

Appearance And Personalization. Personalizing how Windows displays files and folders can provide a tremendous performance boost with very little up-front effort. If you find yourself constantly rearranging lists of files and folders or wasting time opening every image in a folder to find a specific shot, spend some time instead making all folders behave the way you want and turning on preview or thumbnail options in the General and View tabs of Folder Options.

Troubleshoot Problems In Vista

System And Maintenance. Scheduling backups is an important part of system setup, but restoring them is

an invaluable troubleshooting tool. Use the Backup And Restore Center to select a Windows Restore Point at which the system was functioning properly (similar to WinXP's System



Control Panel's Disk Defragmenter can finally run on a schedule to keep your hard drives operating at maximum efficiency.

Restore) or restore specific files and folders from a backup you created. Problem Reports And Solutions offers a series of troubleshooting wizards (along with a useful history of problems and solutions) while the Device Manager continues to perform its traditional services cataloging hardware components and providing access to troubleshooting resources for each.

Security. If you suspect spyware trouble (common symptoms include uninvited pop-ups, strange messages, and unfamiliar programs running independently), visit the Windows Defender module and run a scan. While you're there, check Defender's quarantine and view all currently running software with Software Explorer. Windows Update's View Installed Updates task lets you browse recent downloads if you suspect one of Microsoft's own updates of creating conflicts.

Network And Internet. Vista's Network And Sharing Center helps demystify home and small office network configuration. Starting with the simple diagram at the top of the page and continuing with a list of network connections and sharing options, this new utility makes troubleshooting much easier. Check whether file or printer sharing are enabled and view a single list of all the files and folders you're sharing. The Network And

Classic View

People stuck in the past can cling to the old Control Panel for at least one more Windows iteration. The Control Panel's left-most pane includes a task labeled Classic View. Following the link will provide a familiar layout and category view, but such comfort comes at a price. Here are a few things you won't get from Vista's Control Panel Classic View.

Limited Search. Vista's Control Panel search only

finds each applet's official title in Classic View. In the regular Control Panel Home, Search covers the larger task categories, descriptions, and keywords, as well.

Less Organization. Classic View simply presents a long list of Control Panel functions. In Windows 9x, when the Control Panel had fewer options, this list was manageable. In Vista, with more Control Panel tools than ever before, you miss a lot when you

skip the new categorization and shortcut links.

No Recent Shortcuts. Control Panel Home lists the mostly recently accessed tasks on the bottom side of the left pane. If you regularly visit the Control Panel for the same purposes (adding and removing programs, for example, or optimizing performance), you'll appreciate ready access to your favorite tasks. Classic View doesn't offer the shortcuts. ■

Sharing Center's left pane offers several additional task options, including one to Diagnose And Repair network problems with a user-friendly detection and problem-solving wizard. If you're having trouble syncing other computers or mobile devices, don't overlook the Resolve Sync Conflicts task within the Sync Center.

Hardware And Sound. Any trouble with specific hardware components should send you scurrying immediately to the Control Panel's Hardware And Sound category. Check any modules specific to your problem device, or check the Device Manager for a general look around.

Programs. Programs that launch unnecessarily at startup can create all sorts of trouble. Visit the Default Programs module to control which programs should launch at startup and which you'll call on only when needed.

User Accounts. When you encounter problems that implicate other users in compromising system security, visit the Parental Controls module to view activity reports. General reports identify system configuration changes, or you can enable account-specific reports that summarize browsing and download histories, programs run, and email/IM trails.

The Control Panel provides a single, well-organized configuration destination, whether you need to set up your system according to personal preferences, improve your system's performance, or troubleshoot Vista problems.

And even if you're new to the tool, you'll appreciate all you can accomplish with Vista's Control Panel. ■

BY GREGORY ANDERSON

Performance Information & Tools

Buried in the middle of the System And Maintenance category, the Performance Information And Tools module doesn't leap out at you. After all, its main task (dealing with the Windows Experience Index) isn't exactly self-explanatory. Despite its unremarkable labeling, however, the tool provides a wealth of important information about your system.

Windows Experience Index. Upon launching the module, you'll be prompted to rate your machine. The resulting Windows Experience Index base score can be useful for matching hardware and software

requirements with your system's capabilities.

Manage Startup Programs.

Control applications that launch at startup, helping preserve system resources for the programs you're actually using.

Adjust Visual Effects, Indexing Options, And Power Settings. Vista's slick effects and special tools are eye-catching but can also hog resources. Strike your own balance between form and function with these applets controlling visual effects, search indexing, and power consumption.

Open Disk Cleanup. Disk Cleanup is an old friend offering suggestions on

clearing out clutter by removing temporary, deleted, and archived files.

Advanced Tools. The Reliability And Performance Monitor (and its associated System Health Report) are the most fascinating of all the Advanced Tools. Track your CPU, Disk, Network, and Memory allocation over time with the Monitoring Tools. The Reliability Monitor provides a comprehensive log of software changes, application failures, and hardware crashes—plus a history of Windows failures. Browse User-Defined or System Reports to check a wide range of network and system diagnostic information. ■

Control Panel Hierarchy

Knowing what you can do with the Control Panel is useful, but sometimes you just want a list of what lives where. Here's a breakdown of each new category with key modules residing in each.



System And Maintenance

- Backup And Restore Center
- System
- Device Manager



Security

- Windows Firewall
- Windows Defender



Network And Internet

- Network And Sharing Center
- Internet Options



Hardware And Sound

- AutoPlay
- Sound
- Power Options



Programs

- Uninstall Or Install Programs
- Default (Startup) Programs



User Accounts

- Add Or Remove User Accounts
- Set Up Parental Controls



Appearance And Personalization

- Adjust Screen Resolution
- Change Desktop Background Or Screen Saver
- Folder Options



Clock, Language, And Region

- Set Time And Date
- Change The Date, Time, Or Number Format



Ease Of Access

- Replace Sounds
- Start Speech Recognition

VISTA'S SECURITY TOOLS

THE WINDOWS SECURITY CENTER & ITS SAFEGUARDS

Although Vista integrates many security features, there's a glaring weakness in its armor—Vista has no antivirus program.

Protecting your computer against malicious attacks is no simple task. To thwart evil-doers, your PC needs an Internet security team that includes up-to-date antivirus, antispyware, and firewall protection, as well as an OS (operating system) with the most recent security patches installed. Because it's not easy to manage all the protection you need, Windows Vista includes the Windows Security Center, a console that monitors your security applications, as well as the status of your OS updates and Windows-related security settings. If any of your protections are disabled or outdated, the Security Center will alert you of the security risk to your PC.

In addition to the Security Center, Vista features a number of integrated protections, including Windows Firewall, Windows Defender (antispyware), security enhancements for Internet Explorer, and a User Account Control feature that helps prevent malware from making changes without your knowledge. We'll detail how to use the Security Center, explain what integrated safeguards Vista provides, and analyze the quality of Vista's built-in protections.

It's All Here

Microsoft introduced the Windows Security Center in Windows XP's Service Pack 2 update, but the WinXP version only monitors whether your firewall is on, that you have up-to-date and enabled antivirus software, and if your PC is set to install OS updates automatically. Vista improves

the Security Center by also tracking your antispyware and alerting you when the security settings of Vista and Internet Explorer may put your PC at risk. The various security tools are categorized in the Security Center under Firewall, Automatic Updating, Malware Protection (which covers both antivirus and antispyware), and Other Security (for the security settings of Internet Explorer and User Account Control).

When the Security Center detects a security risk in any area, you will see a notification in the taskbar each time you boot up the PC until the problem is fixed. Although you can turn off the notifications through the Security Center (by clicking the Change The Way Security Center Alerts Me link), we suggest you resolve the security holes rather than disabling the notifications. To help you spot security weaknesses, the Security Center monitors which antivirus, antispyware, and firewall applications (both Windows and third-party products) are installed on your PC, as well as whether those security applications are enabled and up-to-date. If your antivirus or antispyware has out-of-date virus definitions, the Security Center provides an Update Now button that allows you to download new virus definitions directly from the console. We found the Security Center can detect and update most third-party security tools, but not all security applications notify the Security Center of their status.

Because active firewalls and antivirus programs tend to interfere with each other, the Security Center



will point out when you have two competing applications installed on your PC. If the conflicting protections are both active, the Security Center will indicate so and advise you to disable one of the tools. If you need to disable or configure an integrated Vista tool, such as the Windows Firewall, the Security Center provides links (located in the upper-left corner of the console) that allow you to access the settings of Vista's built-in protections.

Windows Data Checkpoint

A firewall helps prevent malicious software from entering your PC by inspecting each piece of data from your online connection. When your firewall identifies inbound data as suspicious, it blocks the source. Unfortunately, computer viruses and spyware can bypass a firewall through email or when you visit a Web site with malicious code. Therefore, it's important a firewall also feature outbound protection to stop malware from sending out your passwords or sensitive data. In Vista, the integrated Windows Firewall is capable of blocking both inbound



When the Security Center detects a hole in your PC's security, it displays notification in the System Tray.

and outbound connections, but by default, it only offers inbound filtering. Making matters worse, outbound filtering must be configured in the Microsoft Management Console (an area generally reserved for system administrators), and there's no wizard or Windows tutorial that instructs you how to block outbound malware connections.

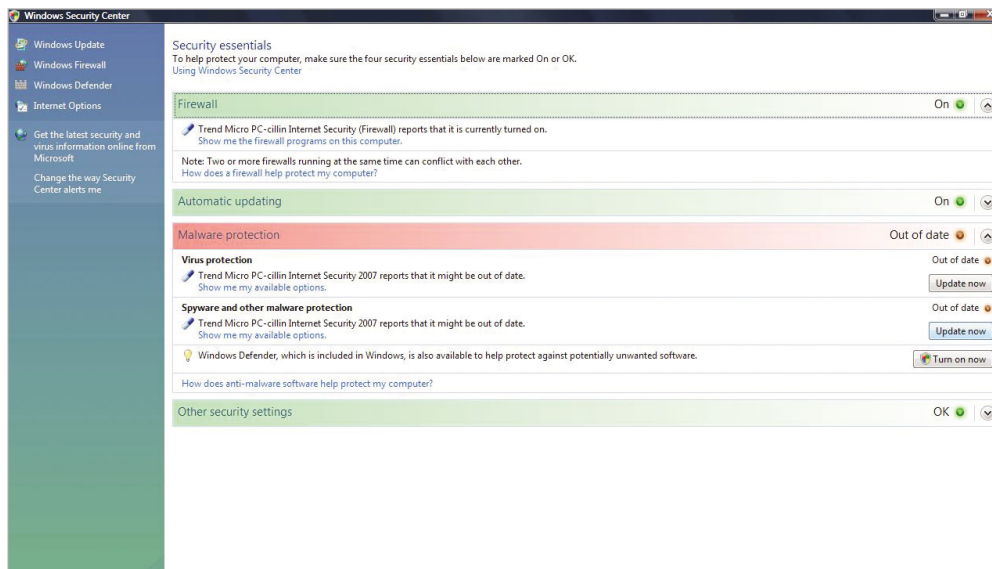
Recommendation: The Windows Firewall is only a basic layer of defense. Most third-party firewalls and security suites with a bundled firewall (including Window's own Live OneCare) offer bidirectional protection that's configured to identify outbound threats for you and is thus more effective and easier to use.

ISpy

Spyware takes many forms, and whether it's gathering information

without your knowledge, hijacking your Web browser, or displaying multiple pop-up ads, you don't want anyone spying on your PC. To prevent, detect, and remove spyware, Vista offers Windows Defender. As a preventive tool, Windows Defender monitors your computer in real-time for changes to critical files or settings, such as your system configuration settings. You can also configure Windows Defender to automatically scan your computer every day, and when used with Internet Explorer 7, Windows Defender will scan downloaded files before you save and execute them. To detect spyware already on your PC, Windows Defender includes Quick Scan, Full System Scan, and Custom Scan features.

Recommendation: With real-time and automated scanning for spyware, Windows Defender is a major step forward in user security—and the price can't be beat.



The headings of each Security Center category feature a color indicator for the current state of the given protection. A green heading means your PC is using an appropriate setting or software to safeguard that type of protection. If a heading is red, one or more of the security items under that category is missing, turned off, or out-of-date.

Bringing Security To You

In WinXP, many people log in under an administrator account that provides them access to every setting and application. Unfortunately, when a virus or spyware program has administrator access, the malware can install itself and change your computer's settings without your knowledge. To protect your OS from malicious software, Vista's User Account Control feature brings up a dialog box

that requires you to allow any computer-altering action, such as changing a Windows Security Center setting, before a task can proceed.

Therefore, you can determine whether the prompted action is one that you intended.

User Account Control splits every action into ones that can be performed by a standard user and ones that need administrative privileges. If you log in with standard user credentials, you'll need to provide an administrative username and password before you perform an administrator-level task. However, even when you log in with administrator privileges, User Account Control will prompt you to allow a task that requires administrator rights.

Recommendation: You may tire of the User Account Control feature after it prompts you to allow system alterations as simple as changing the date or time, but we strongly suggest you keep the feature turned on to prevent viruses and spyware from exploiting your PC.

A Stronger Internet Explorer

Some Web sites can transmit viruses and spyware into your PC through security flaws in your Web browser. Internet Explorer 7 has a Vista-only feature, known as Protected Mode, that restricts a Web site from modifying user files or set-

tings, installing software, copying files, or changing IE7's security settings. Consequently, even if you visit a Web site corrupted with malware, running IE7 in Protected Mode will limit an attacker's ability to hijack your PC. It's important to note that User Account Control must be enabled for IE7 to work in Protected Mode.

Because elaborate fake (phishing) Web sites may trick you into providing personal data, IE7 features a phishing filter that analyzes Web site content and prompts you when a Web site cannot be trusted. Additionally, IE7 monitors its own security settings, such as whether ActiveX controls are enabled, and will alert you through the Security Center if your current configuration puts your PC at risk.

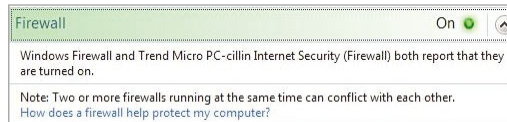
Recommendation: To Microsoft's credit, IE7 in Vista addresses many of the vulnerabilities previously associated with Internet Explorer. As long as you

maintain the proper security settings and work in Protected Mode, you are reasonably well-protected against threats while surfing the Web.

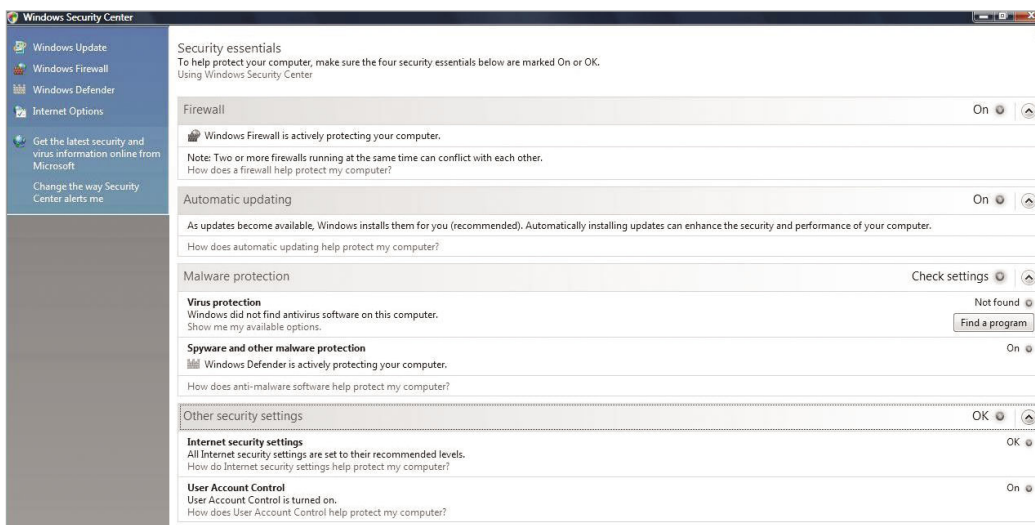
Achilles' Heel

Although Vista integrates many security features, there's a glaring weakness in its armor—Vista has no antivirus program. As Window Security Center will indicate, your PC is vulnerable to attack from viruses and worms until you install anti-virus software. If you already own antivirus software and are migrating to Vista, you may need to contact your antivirus manufacturer about upgrading to a Vista-compatible version. If you don't have an antivirus program, consider downloading free antivirus software, such as Grisoft's AVG Anti-Virus Free Edition (free.grisoft.com) or ALWIL Software's avast! 4 Home Edition (www.avast.com), for immediate protection.

At first glance, the Security Center in Vista may seem unchanged from WinXP's, but the expanded console offers greater security guidance and a complete overview of your protections. For some users, the frequent notifications from the Security Center and User Account Control may seem obtrusive. Fight the urge to turn off these features or give the rubber stamp of approval to User Account Control prompts. After all, the time it takes to resolve your security issues is a small price to pay compared to the consequences of identify theft from spyware or the corruption of your PC through viruses. ■



Because two active firewalls can cause conflicts on your PC, the Security Center will point out when two firewalls are enabled.



You can configure Vista's integrated security tools by clicking the appropriate link in the upper-left corner of the Security Center.

BY NATHAN LAKE

Browsers

Customize IE7's Search Tool

Internet
Explorer 7

Beginner

Internet Explorer 7 makes easy Web searching a priority with a new interface that features a search tool in the top-right corner of the window. To use it, simply enter your search terms, click the magnifying glass icon or press ENTER, and search results appear in the browser.

By default, of course, the search tool IE7 relies upon is Microsoft's own Live Search. If you prefer Google or some other search engine, however, you can replace Live Search with your favorite competitor. You can also add specialized searches, such as Wikipedia, shopping sites, news sites, or virtually any site with an integrated search tool. Exactly how this bit of IE7 works is up to you.

Central Search

IE7's search tool is actually several search tools in one. A specific search engine is set as the default, and that is what shows up each time the browser starts up. Assuming you haven't customized any search settings yet, that means you'll probably see Live Search in gray text inside the search field. You can access different search engines, however, just by clicking the Down arrow next to the search field. A short list of other search sites appears. Choose one, and that search engine name will now show up in the search bar. The

next time you run a search, the results will come from the site you chose.

If your favorite search engine already shows up in IE7's list, you can select it to be the default instead of Live Search. Click the search Down arrow and choose Change Search Defaults. Click the search engine you want and then click Set Default. If there are any search engines on the list that you don't want taking up space, click that search tool to highlight it and then click Remove. Click OK to exit the screen after you've made all of your changes.

New Providers

If a search engine you want to use is not among those listed, you can add it. Click the search bar

Down arrow and select Find More Providers. A special Web page loads up in the browser window with a small list of search engines. The biggies, such as Google and Yahoo!, can be found in the left column. The middle column has a sampling of topical search engines, such as eBay, Wikipedia, Amazon, and others. Click any search provider you think you might want to use once in a while to add it to the IE7 drop-down list. In the small window that appears, click Add Provider. You can also select a checkbox to make the new search engine your default search provider.

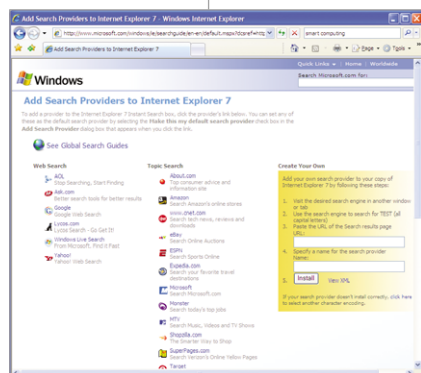
Adding a search engine not already listed on this Web page is also pretty simple. Microsoft provides some instructions on the right side of the screen in a yellow column. Basically, all you need to do is open your selected search engine in a separate window and run a search for the word "TEST" (make sure it is in all capital letters). Once the results page appears, copy all of the text from the Address bar and paste it into the blank field in the yellow box at step three. In the next field, enter a name for the search engine. Click Install. IE7 takes the sample results address you provided and, in the future, replaces TEST for whatever search string you enter. That's all there is to it.

Look Locally

IE7's search tool includes one more type of search feature. Click the drop-down menu again and choose Find On This Page. A small pop-up window appears with another search field already filled out with whatever you had typed in the main search bar. Add to or change the search terms, if necessary, and click Next. The browser automatically scrolls to and highlights the first instance of your search term, if it indeed exists on the current Web page. Click Next again to move to the next use of the term or click Previous to search back toward the top of the page. Click the Match Case or Match Whole Word Only checkboxes to narrow your search.

IE7's search tool makes for efficient Web wandering. The only problem is remembering that it is there so you don't unnecessarily load up one search engine after another in the main browser window. ■

BY ALAN PHELPS



Internet Explorer 7 includes a customizable search tool in the top corner of the browser window. Choose from a variety of search engines or add less common favorites to the built-in list.

Online

Avoid Traffic With Online Maps

Mapping Sites

Beginner

Web-based mapping sites can not only point you in the right direction, but they can also give you an idea as to whether everyone else is heading in that same direction.

Real-time traffic updates on three of the top online mapping sites—Google Maps, Yahoo! Maps, and Microsoft's Live Search Maps—are far from perfect, but they might save you some time and aggravation next time you plot your route through the metropolis. In this month's article, we take a quick look at what these sites offer and how to use them.

Google Maps

Head to maps.google.com and access traffic data by clicking the Traffic button next to the three other view buttons in the upper-right corner. If you're zoomed way out, you'll just see traffic lights denoting cities where traffic information is available. Zoom in closer on one of those areas, and you'll see color-coded double lines superimposed atop major highways and other roads. Generally, green means no problems, yellow indicates slower traffic, and red means there are folks moving at less than 25 miles per hour.

Gray lines mean no data is available at the moment for those roads. Unfortunately, there are a lot of gray lines; how many depends upon the city you're viewing. Los Angeles, Calif., for example, was lit up like a red-and-green Christmas decoration the day we looked. Philadelphia, Penn., on the other hand, was almost entirely gray.

Microsoft Live Search

Point your browser to maps.live.com to see Live Search Maps, Microsoft's feature-filled (at least for Internet Explorer 7 users) map site. Like Google, traffic information shows up here as color-coded lines that represent roads after you click the Traffic link at the top of the map. Rather than Google's bold lines, Live Search Maps uses slightly more subtle highlighting. Both look fine, although Google makes it a bit easier to tell which color belongs to which side of the road.

Live Search Maps adds another layer of data in the form of icons representing accidents, construction, and other incidents. Yellow, orange, and red icons denote minor, moderate, and serious incidents. Hover your mouse pointer over an icon and a pop-up window displays a summary of information about the incident.

Yahoo! Maps

Instead of lines or highlighting, Yahoo! Maps (maps.yahoo.com) tacks small colored dots next to roads that indicate the situation at specific spots. The dots aren't always easy to find, and it's hard to tell how far heavy traffic extends from either side of a red dot.

Like Live Search, Yahoo! includes icons pinpointing various incidents, such as accidents and road construction. In some jurisdictions, however, the incidents include a slew of relatively minor events. Our neighborhood featured a few icons for incidents that, in reality, would not have actually slowed down any drivers. Unlike Live Search, Yahoo! Maps does not include a way to remove all of the icons without turning off traffic information altogether.

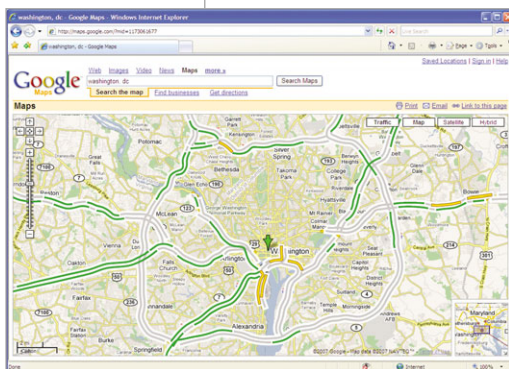
Jammed Up

Real-time traffic maps are great in theory, but there are some limitations: Most of the data is for freeways, leaving other major roads out in the cold. Second, too many roads simply report no data. We mentioned some gray spots on the Google maps; Microsoft and Yahoo! maps exhibit the same problem.

Perhaps more troubling is the accuracy of the traffic data. For instance, at one point Yahoo! Maps reported slow going on I-395 through Arlington, Va. Views of that same road using various live traffic Web cams, however, showed open lanes with cars zipping along. A driver who decided to avoid that highway would only have wasted time. Another day, Yahoo! reported severe backups on a couple of highways leading out of Washington, D.C., where both Google Maps and Live Search showed clear, green color-coded roads.

In other words, what you see on the live traffic maps is not always as up-to-date as it claims to be. Check your favorite online map before you head out the door and maybe even consider alternative routes, but don't be completely surprised if the situation on the ground isn't quite what the maps said it would be. ■

BY ALAN PHELPS



Google Maps recently became the latest Web-based mapping site to add live traffic conditions.

Microsoft Excel 2002

Creating Charts

Quick Studies
How-To

Spreadsheet

Intermediate

2002 for
Win9x/NT
4.0/2000/XP

To the uninitiated, Excel charts can seem like some black-art blend of graphic design and statistical analysis. And even those familiar with Excel's charting tools can get baffled while trying to arrange all the labels and axes in a worksheet so that Excel automatically pulls them into the right parts of a chart. This month, we take the mystery out of turning rows and columns of data into great-looking Excel charts.

Prepare For Success

Whenever Excel spits out a chart with numbers and names in the wrong places, it's probably because your data was laid out improperly for the kind of chart you asked Excel to make. To make sure everything is correctly arranged, use Excel's examples. Choose Help and Microsoft Excel Help and type **create a chart** in the search field. Click Create A Chart, select the kind of chart you'd like Excel to make, and read the examples of how to arrange data in rows and columns so everything is where Excel expects to find it.

The Quickie Chart

With the data set up properly, you can choose two paths to generating the chart. The simplest way (which provides the least up-front control over the chart's appearance) is to

start by highlighting the data that will fill your chart. Excel demands that you select a rectangular body of cells. You can select nonadjacent cells by highlighting the first group and then holding down the CTRL key while you highlight the others. Just make sure that the overall group forms a rectangle.

Now open the Chart toolbar by selecting View, Toolbars, and Chart. Then click the Chart Type button and choose the kind of chart to create. You'll see 18 choices here, which seems fairly generous until you get to the Chart Wizard below and realize how many options really exist. After you select a chart type, the new chart appears in the worksheet, formatted with the default colors, fonts, and other characteristics. You can customize

all these settings at any time by double-clicking the specific part of the chart you want to change.

Format-As-You-Build-It Charts

If you'd rather have the first version of a chart look more like your final vision, use the Chart Wizard to walk through the settings as you build it. Before you call in the wizard, select the data block you're going to chart. This lets you take advantage of the preview function you're about to see in the wizard. Now choose Insert and Chart to produce the Chart Wizard window.

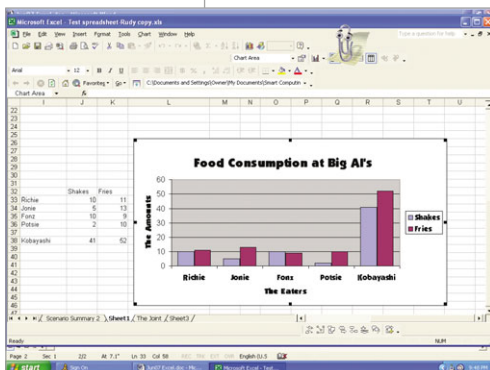
The wizard's first step asks you to choose the type of chart to create. That seems simple, until you see that every chart type has multiple subtypes. It's not just a column chart; it's a clustered column, stacked column, or 100% stacked column with a 3D effect. Excel provides thumbnails showing what each type looks like so you can keep up even if you slept through statistics class in college. Plus, the dialog box includes a button you can click to see how your data will actually look in the selected chart form. Get in the habit of using this button; it prevents a lot of surprises caused by choosing the wrong kind of chart.

Once you've chosen a chart type, click Next. This is where you actually choose the range of cells that will feed data into the chart. Because you wisely selected the data ahead of time, you'll see a flashing border around the selected data on the worksheet. If you need to change the selection, do it now. Otherwise, click Next.

The third screen takes a little time, as it's the place to make decisions about numerous elements of the chart's appearance. As you add elements such as gridlines or labels showing the numerical value of each bar in a bar chart, you'll see the changes appear in the preview window within the dialog box.

The final window asks whether you want the chart to appear within the existing worksheet or on a new one. When you click OK, the chart appears in the proper place. To edit details, double-click an element to open the Format dialog box.

Now you'll probably notice some things you'd like to change. Next month, we'll discuss solutions for the most common chart problems. ■



You can quickly turn cells full of data into a chart by using either the Chart Type toolbar button or the more detailed Chart Wizard.

BY TREVOR MEERS

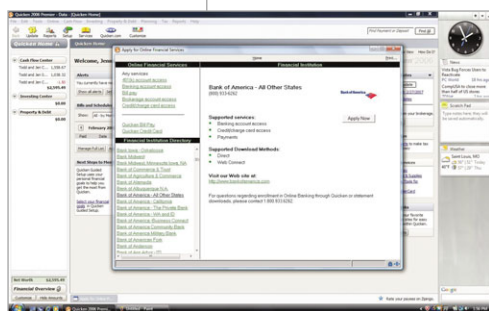
Intuit Quicken Premier 2006

Bank Online Through Quicken

Personal Finance

Intermediate

2006 for Win98/
Me/2000/XP



In order to use Quicken's online banking services, you must first apply for them through your financial institution.

No matter how useful a computer program is, if you're not using it in conjunction with all the Internet has to offer, chances are you're missing out. This is especially true with Quicken Premier.

The program is designed to work seamlessly with the Internet so that you can accomplish even more. Taking advantage of this online connection allows you to do your banking online, access research information from the Internet, and keep your accounts up-to-date.

If you haven't yet set up online account services through Quicken, we'll show you how to get started. It's an easy process, but there are a few things to know in order to make things go as smoothly as possible.

If you've tried to set up online access through Quicken and run into a few snags, we'll identify the possible problems and help you get things running as they should.

Online Account Services

When you first install Quicken, the program walks you through the process of setting up different types of accounts. Part of this process involves accessing your current bank account information. You can enter this information manually, but having the information downloaded directly from your bank is easier and faster.

The ability to download your financial information with the click of a button is called Transaction Download, and it's just one of the online account services Quicken offers. If your bank supports it, you'll be able to download information using the Direct Connect method. Financial institutions that don't support Direct Connect may still allow transaction downloads through Web Connect, which requires a few more steps but accomplishes the same goal.

Quicken's other online account services are Online Payment and Quicken Bill Pay. Online Payment works equally well for paying monthly utilities and sending a one-time check to your sister-in-law. Quicken Bill Pay is the next best

thing to Online Payment if your bank doesn't support that service. The costs for these services vary by bank, but generally run around \$10 per month.

Quicken's Required Setup

Banking online through Quicken is not difficult, but it can be a bit confusing. When you're setting up a new Quicken account and are asked if you want to download your account information from your financial institution, most users who already have an online customer ID and password at their bank may think they're ready to use these services through Quicken. But to use the online services through Quicken, you'll need to apply for and set up an online account through Quicken.

Begin by clicking the Online menu and choosing Participating Financial Institutions. In the Apply For Financial Services window, find your financial institution in the scroll box on the left. When you click it, the main window will display information specific to the online services your institution offers. Generally, if you already had an online banking account at the institution, you'll just use that customer ID and PIN to allow access to that information through Quicken. If you don't, you'll need to call the institution using the number provided and set up an account. This process typically takes a few days to a week.

If your financial institution is not listed, you have three options. The first is to open a new account using one of the listed institutions. The second option is to wait until your financial institution shows up on the list. New ones are added frequently, so if you're not in a big hurry, this might be a good option. Finally, you can apply to use the Quicken BillPay and Quicken Credit Card service. These are helpful if you're only interested in paying bills online and want to download credit card transactions into Quicken. Find out more about these services by clicking Tools and Quicken Services.

Once you've applied for your Quicken account, you can continue with your account setup, entering the appropriate Customer ID and PIN when Quicken prompts you for them. Now your bank account information should download automatically, giving you full access to online banking, Quicken style. ■

BY JENNIE SCHLUETER

Corel Paint Shop Pro 9

Getting To Know The Resource Manager

Image Processing

Intermediate

9 for
Win98SE/Me/NT
4.0/2000/XP

Spend any time with Paint Shop Pro 9, and it soon becomes apparent that the software is loaded with preset tools. If you want to save some time by running a script, the app has more than 50 different scripts from which to choose. If you're looking for brush tips, you can start with the three dozen-plus brushes provided. If it's patterns you're craving, Paint Shop Pro has 60 at your fingertips.

Scripts, brush tips, patterns, and other tools such as maps, masks, and picture tubes are what are known as resources. These resources are stored in various locations on your computer. To see all the resource categories, you can go to the File menu and select Preferences and File Locations. The File Locations dialog box shows you where resources are stored and allows you to change where Paint Shop Pro finds and stores these files.

However, the File Locations tool does not let you easily manipulate these resources. Suppose you want to copy a particular brush head to another location on your PC. Before Paint Shop Pro version 9 was released, the process was a bit cumbersome.

First, you had to determine where the brush head was stored on the PC by going to the File Locations dialog box and locating the correct folder. Then, using Windows Explorer, you would scan your hard drive, often looking through one folder containing hundreds of files, hoping that the file name was obvious enough that you could match it with the brush tip name. (Your hopes frequently were dashed.)

The Resource Manager

While you can still manipulate Paint Shop Pro resources in this manner, Paint Shop Pro 9 introduced a feature that greatly streamlines this process. The Resource Manager lets you easily delete, rename, copy, and move resources. Opening the Resource Manager dialog box varies slightly from resource to resource, but once in the utility, you'll find an easy (and consistent) technique for working with resources.

In our example, we'll work with gradients, located in the Materials palette. Make sure the Materials palette is open by opening the View menu and selecting Palettes and Materials. Click

either the Foreground And Stroke Properties or the Background And Fill Properties to open the Material Properties dialog box. Select the middle (Gradient) tab. In the gradient drop list (the large-ish box in the upper left of the Gradient tab), click anywhere in this box. In the resulting window, click the icon next to the Category drop-down list, which looks like, well, we're not sure how to describe it, but it has a small, red check mark. This opens the Resource Manager dialog box.

(NOTE: If you're opening the Resource Manager when using another resource category, you can typically do so by going to the Presets menu in the Tool Options palette, clicking the Down arrow, and selecting the Resource Manager icon. But, you can open only one Resource Manager dialog box at a time.)

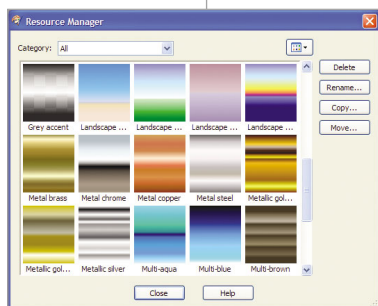
Control Resources

Each Resource Manager dialog box contains four action buttons: Delete, Rename, Copy, and Move. When you manipulate resources through this dialog box, it has the same effect as if you were manipulating them through Windows Explorer. Deleting a resource is simple; select the resource, click the Delete button, and click Yes when asked Are You Sure You Want To Send <resource name> To The Recycle Bin? The same simplicity applies to renaming resources. Click the Rename button, enter a new file name, and click OK.

When you copy or move resources, the procedures are slightly more complex on the back end. When you move a file, that doesn't mean it will be accessible via the Resource Manager in its new resource location. For instance, we moved the Duotone Bright Green gradient to the file folder where the patterns are stored.

But when we opened the Resource Manager from the Pattern tab, it was nowhere to be found. When we examined the folder via Windows Explorer, we learned why. Although the gradient files may resemble pattern files, they were of different file types, and the Pattern Resource Manager couldn't recognize the new file.

Keep in mind that you cannot have duplicate file names in Paint Shop Pro. If you're copying a resource file to another location, rename it so that you can access it from both resource groups. ■



The Resource Manager tool lets you easily delete, rename, copy, and move Paint Shop Pro resource files.

BY HEIDI V. ANDERSON

Microsoft PowerPoint 2002

Troubleshooting Custom Animations

Presentation

Advanced

2002 for
Win9x/NT
4.0/2000/XP

Don't like how your slides' animations are working? Use these tips to fix some common problems. To get started, choose Slide Show and Custom Animation. This opens a task pane with all the relevant information about the current animations, plus all the tools for adjusting them.

Animations run in the wrong order. Icons beside each animation on the task pane indicate its settings. The numbers designate the sequence in which animations will run and match the numbers appearing beside each slide element in the main window.

Changing animations' order is simple. Let's say the slide is currently set up so that the corporate logo fades into view right after the company slogan. In the task pane, the slogan is at the top

of the animation list (under a name such as "Shape 1") and the logo is just below it (probably under its file name, such as "Acme logo"). To change the order, click an item on the list and click the up or down arrow near the word "Re-Order" at the bottom of the task pane.

You also can drag an animation to another spot on the list. As you're dragging it, a bar appears to show where it will land if you release the mouse button. To move several animations at once, click them all while holding down the CTRL button and then click the arrows or drag the mouse.

Animations start at the wrong time. On the task pane's animation list, mouse icons mark animations that run when you click the mouse, while clock icons indicate animations that run after the previous animation on the list. If there's no icon, the animation runs simultaneously with the one ahead of it.

Click Start to indicate whether an animation should run with or after the previous one or when you manually click the mouse.

Sometimes, you won't know exactly when you want an animation to run. Maybe you're planning for audience members to ask questions that you answer by clicking a star that disappears and reveals the answer. To make the star disappear when you

click it, apply a Fade Exit effect and then right-click the effect and choose Effect Options. On the Timing tab, click Triggers and select the star's name on the drop-down list.

I want to change animation effects. The little star icon is designed to show what effect is applied to an object, but the numerous variations of stars with motion lines on them usually aren't all that instructive. A quicker way to identify the effect is to click its name on the list and look for its name (such as Peek In or Faded Zoom) toward the top of the task pane.

You can change an animation by clicking the Change button at the top of the task pane and choosing a different effect. (Click More Effects to see the complete options. The Entrance Effects pop-up list, for example, shows fewer than 10 choices, but there actually are about 50 available.)

You can apply multiple effects to one object, even effects that run at the same time, such as a Grow/Shrink emphasis effect that runs as a text block as it's doing a Fly In from the left.

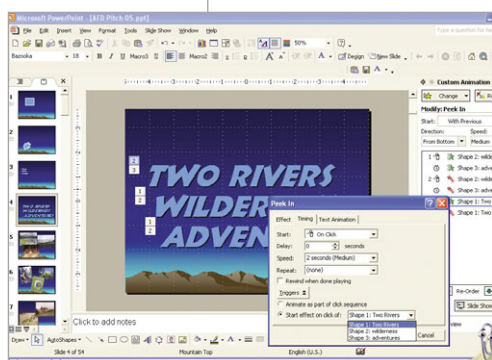
The direction, speed, and other factors are all wrong. Where do I start? The task pane includes buttons for adjusting basic elements of how an animation actually works. The Direction button is self-explanatory, controlling where the animated object appears from or moves to. Note that some effects have no direction setting.

The Speed setting usually requires some experimentation, depending on the effect and on how fast your computer runs under the graphic burden of a given presentation. On many computers, the Very Fast setting creates an overly frenetic look. But in certain situations, anything slower looks plodding.

For detailed control of an animation, right-click its name on the list and choose Effect Options.

I'd like to use this animation on every slide, but that seems like a lot of work to set up. If all this tweaking creates an animation so good you want it throughout a presentation, there's a quick way to apply it. Choose View, Master, and Slide Master. Settings on the Slide Master affect all similar slides in the presentation. So if you apply a Fly In effect to the bullet list here, for example, then every bullet list in the presentation will use the same effect. ■

BY TREVOR MEERS



If you can't predict when you'll need an animation to run, apply a Trigger that starts the animation when you click the object.

Quick Tips

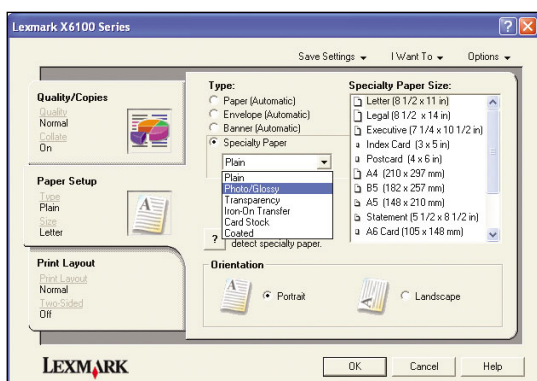
Secrets For Succeeding In Common Tasks

BY STEPHEN J. BIGELOW

Printers

Question: How can I stop the paper from wrinkling when I print images on my inkjet printer?

Answer: The problem is that your inkjet printer is flooding the paper with ink. There are two things



Some printers can modify the amount of ink used by telling the printer what paper type is in use.

that you can do to reduce this problem. First, you should avoid plain xerography-grade paper and use coated inkjet paper instead. The coating helps dry the ink and keeps it on the page surface instead of letting the ink permeate the paper fibers. Coated papers will also make the image appear a little brighter.

Also, you can set your printer options to use less ink. In some cases, this may simply be a matter of selecting the printer's economy mode in the printer Properties dialog box. (The name of this setting and where to find it will vary among printer types.) However, many modern inkjet printers provide a more detailed set of printer preferences that can actually adjust the ink appropriately based on the paper type. If your printer includes this capability, be sure to tell the printer what type of paper you are using. Always refer to the instructions that accompany your inkjet printer to learn about specific image quality options.

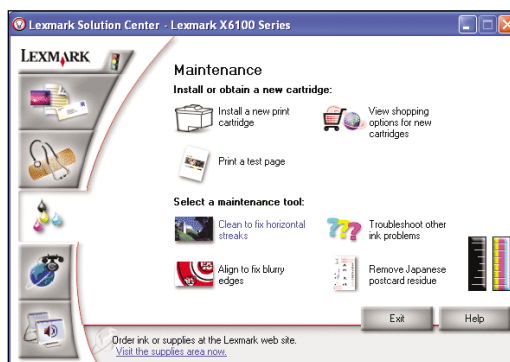
Printers

Question: I like to print a lot of photos, but I've started noticing a faint line from left to right across every pass. Do I need a new ink cartridge?

Answer: An ink cartridge works by squeezing droplets of ink from a series of microscopic nozzles. If the ink solvent dries out or foreign matter (such as dust) gets into the ink supply, nozzles can become clogged; no ink will pass, and this can result in horizontal white lines across the image, such as those you are seeing.

This type of problem has existed since inkjet printers were first introduced.

Try running a purging cycle, or cleaning cycle. This fires the nozzles to clear out any clogs. Use your printer's diagnostic features to run a cleaning cycle.



You can try a second cleaning cycle if the problem persists. If the lines across the image remain, however, replace the ink cartridge.

A cleaning cycle, or purge cycle, can free clogs in an inkjet nozzle that may be causing white lines across an image.

Microsoft Word 2003

Question: How can I change the default locations for my Microsoft Word 2003 files?

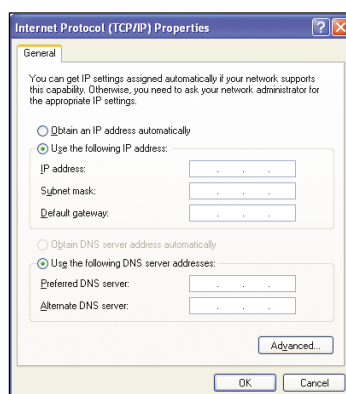
Answer: Launch Word and click Tools, Options, and then select the File Locations tab. Highlight the file type (for example, Documents) that

your changes should apply to and click Modify. Enter the new folder location and click OK. Word should now save subsequent files of that type to the new location without you having to navigate to that folder manually each time.

Home
Networking

Question: I'm setting up a home network. Is it better to assign IP (Internet Protocol) addresses manually or let the network assign the addresses? How do I do both?

Answer: Every device on an Ethernet network must receive an IP address. You can choose to manually assign a static IP address to each device, or allow a DHCP (Dynamic Host Configuration Protocol) server on your network to assign dynamic IP addresses automatically. To manually assign an IP address (running in Category View), click Start, Control Panel, Network And Internet Connections, Network Connections, and then right-click your LAN (local-area network) connection and select Properties. Highlight the Internet Protocol (TCP/IP) entry and click Properties. Now, click the Use The Following IP Address radio button and enter the desired IP address for that PC. Technically, you can set the IP address to any valid address you want, as long as the PC is in the same subnet as other PCs and the broadband router. For simplicity, you can use the first three sections of the



broadband router's default IP address and then select the last segment that is not used by other PCs or devices on the network. You may also need to enter a valid Subnet Mask and Default Gateway in the appropriate fields. Click OK to save your changes.

You can see this is a tedious process that has to be repeated for each PC or other device, such as a network storage device. Today there is no real need to manually assign IP addresses. Most broadband routers include a DHCP server, which can locate devices on the network and assign IP addresses automatically. To use DHCP, make sure that the DHCP feature is enabled according to the

manufacturer's instructions and leave each PC set to Obtain An IP Address Automatically. When you boot each PC and each device, they will automatically receive an IP address.

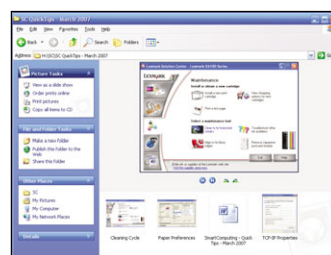
You can select specific IP (Internet Protocol) address, subnet, and gateway settings for the PC or allow the PC to obtain an IP address automatically.

Windows Files
& Folders

Question: I normally have a lot of images in my folders, but it's such a pain to open each file to check it. Is there any way to preview images from My Computer?

Answer: In Windows XP, simply switch your file view to the Filmstrip mode. Open My Computer and navigate to the folder that contains the images you want to view. Right-click within the list of files and then click View and Filmstrip; your images should appear in slideshow form. Click the desired thumbnail to see a larger preview of

the image. Remember that not all file types will appear or support thumbnail views.



Select the Filmstrip view to see folder images without having to launch a viewer and load the images specifically.

PC Fans

Question: When I first start up my PC, it sounds like fans spin all at once and then the system becomes almost silent. Is this normal?

Answer: Chances are that your PC is using temperature-controlled fans. Rather than regular fans that start and spin constantly, some PCs use fans that regulate their speed according to the temperatures

monitored within the enclosure. When the PC starts, all the fans spin up for a few moments, but because the PC is cool, the fans quickly slow (and even stop). As the air inside the PC warms up, the cooling fans will begin to work a bit harder, and you may start to hear the fans again if the PC becomes stressed for a period of time—usually with processing-intensive programs.

A New Frame Of Mind

Digital Picture Frames Provide A New Way To Display Photos

The lines between computers, electronics, and even home furnishings grow ever fainter as more of the items we use in our everyday lives are based on digital technology. Today, even picture frames come in digital varieties. A digital frame consists of an LCD, similar to the one on your LCD monitor or notebook screen; a port or slot for

connecting to a device that stores your digital photos; and a set of controls. In addition, many digital frames also feature wooden finish for a classic appearance, and some digital frames also come with a remote control for changing the image displayed on the frame. As you'll see, there are a variety of digital frames available today, with one to suit almost any taste.

CEIVA 8-inch Digital Photo Frame

\$199.99; www.ceiva.com

Pros:

This digital picture frame from CEIVA includes two faceplates—you can choose between black metal and wood. The CEIVA 8-inch Digital Photo Frame also provides several connectivity options. You can load images directly from a flash memory card, connect a USB card reader, or access images from a networked PC over a broadband or wireless connection (wireless connectivity requires an optional adapter). Finally, if the digital frame is connected to the Internet, you can order prints of your photos directly from the frame.



Cons:

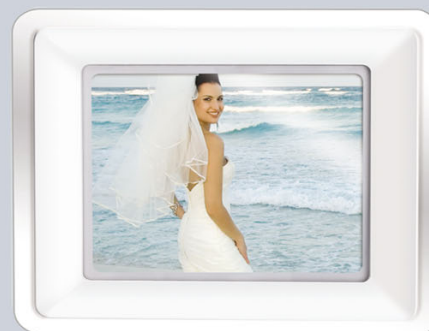
Some of the other frames discussed here have a higher resolution than this frame, but the image is still clear and bright. Also, if your home or office décor has a classic look, this modern-looking frame may not fit in well.

Coby DP-102

\$189.99; www.cobyusa.com

Pros:

Coby's DP-102 digital frame features an impressive 10-inch widescreen LCD. Similar to the CEIVA frame, the DP-102 comes with a pair of interchangeable faceplates, one white and one black. It is wall-mountable and comes with a remote control, which you can use to choose photos to display and to select MP3 or WMA (Windows Media Audio) files to play through the frame's built-in speakers. The DP-102 has memory card slots for reading images directly from flash memory cards, and it also has a USB port for connecting a card reader.



Cons:

The display resolution for this frame is about the same as that of the CEIVA frame, and it's another frame that would be more at home with a modern décor than with more traditional furnishings.

Digital Foci Image Moments

\$229; www.digitalfoci.com



Pros:

The Digital Foci Image Moments frame has a more classic look than the CEIVA or Coby frames. Its 8-inch LCD can display still images and videos. It has built-in memory card slots and can play music through its built-in speakers. You can manage the photos on your memory card through the frame's menus, which let you copy, delete, and rename photos without touching a PC. The frame is wall-mountable and has an automatic on/off timer you can set.

Cons:

Although this frame can access photos stored on miniSD (mini SecureDigital), MS Duo (Memory Stick Duo), and xD (eXtreme Digital) cards, you'll need an adapter. However, the frame supports most other formats natively.

Fidelity Electronics DPF-5600F

\$199.99; www.fidelityelectronics.com



Pros:

Fidelity Electronics' DPF-5600F digital frame has a 5.6-inch LCD and several built-in memory card slots. This frame's unique feature is that it has a TV/Video output for viewing your photos on a television. It also supports most AVI movie files. The frame has a resolution of 960 pixels by 234 pixels, which is impressive, considering the small size of the frame.

Cons:

Although the LCD has a high resolution, the clarity of images isn't as good as that of some of the frames with lower resolutions. This frame would also be much more useful if it included a remote control to make it easier to maneuver within the frame's menus. The buttons are on the back of the frame and not uniquely shaped, so it's hard to tell which button you're pressing without flipping the frame around.

Kodak EasyShare EX1011 Digital Picture Frame

\$279.95; www.kodak.com

Pros:

The Kodak EasyShare EX1011 Digital Picture Frame has a large, 10-inch LCD, but the frame's real selling point is its wireless connectivity. When connected to the Internet, the frame lets you display photos from a networked PC or from Kodak's online EasyShare Gallery. You can also print images directly from the frame to a networked printer without using a PC. The EasyShare EX1011 has built-in memory card slots and speakers and comes with a remote control.

Cons:

Kodak plans to offer optional interchangeable faceplates, but they weren't available as of press time.



We felt that the Kodak EasyShare EX1011 Digital

Picture Frame was the best value, because it provides several ways to access your photos. With its built-in wireless connectivity, you need fewer cables that could otherwise make the frame look unsightly on a desktop or wall. When Kodak releases the optional faceplates, this will add even greater value to this frame by letting you customize it to match its surroundings.

What To Do When . . .

Your Firewall Blocks Internet Explorer



No single tool can provide your PC total protection from the potential dangers on the Internet. Instead, a number of tools working together, such as an email filter, antivirus program, and a firewall, can give your system the coverage it needs.

Unfortunately, these tools—whether installed individually or as part of a suite—sometimes get a little overzealous. For instance, your email filter could quarantine a message you want to read, or your firewall might block a program you want to use.

A firewall is an indispensable part of system protection. It blocks the attempts of anyone on the Internet trying to connect to or access your system without your permission. The firewall also asks your permission—which you can grant permanently by establishing an exception—to allow connections you need for programs such as instant messengers or online multiplayer gaming. Some firewalls will block outbound communication with networks. In addition, they can protect against viruses and worms.

However, when your firewall blocks your ability to use your Web browser, then it's gone too far. If you can't use Internet Explorer and you think your firewall is the culprit, here's what to do—short of turning off the firewall completely.

Windows Firewall

When Microsoft released Service Pack 2, a major upgrade to Windows XP, it included Windows Firewall, which was designed to replace the old Internet Connection Firewall. By default, Windows Firewall is turned on. If

you've installed another firewall, the installation process likely will ask you to turn off Windows Firewall, or the other firewall may automatically disable Windows Firewall. If you are using one of the major third-party firewalls, we'll explain your troubleshooting options below.

To access Windows Firewall, go to the Start menu, open the Control Panel, and click Windows Firewall. (Alternatively, you can choose Start, Run, and type `firewall.cpl`.)

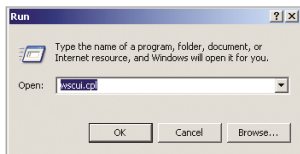
If Windows Firewall is blocking IE, you might receive a Windows Security Alert indicating such is the case. If so, click Unblock in this dialog box, and your problem should be solved.

However, if you can't use IE and don't receive a Windows Security Alert, a better course of action is to open Windows Security Center—make sure you are logged on as an administrator when doing this—and click the Windows Firewall link so you can manage its security settings. To do this, either click the Windows Security Center icon in the Control Panel or type `wscui.cpl` in the Run command and click OK.

In Windows Firewall, click the Exceptions tab. This displays the list of programs and services that Windows Firewall exempts from blocking incoming network connections for. If IE is not listed, click the Add Program button and use the Browse button to find it. (The file `Iexplore.exe` should be located at `C:\PROGRAM FILES\INTERNET EXPLORER`.) Highlight it and click OK twice.

Third-Party Firewalls

As mentioned, installing a third-party firewall, even if it's just an incoming firewall that is part of another program, will result in disabling



For quick access to Windows Security Center and Windows Firewall, open the Start menu and use the Run command.

Windows Firewall. (If this doesn't happen automatically, or if you aren't prompted to do so, you should disable Windows Firewall because in most cases it's best to have just one firewall running at a time.) Once the firewall is installed and activated, if you encounter a problem using IE, check the security settings.

If you are using Norton Personal Firewall (\$49.99; www.symantec.com), for example, click Status & Settings on the left side of the main page and then click the Personal Firewall link. Now, double-click Default Level. Make sure the setting here is Medium, which will not only allow access to IE, but will also allow the use of Java applets and ActiveX controls. When these are blocked, many Web pages won't load—making you think the problem is with IE.

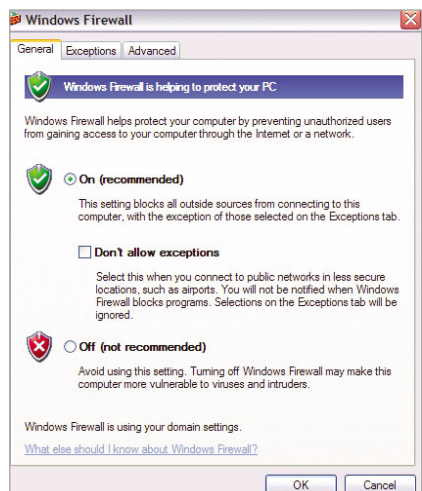
Another example, the McAfee Personal Firewall (\$34.95; www.mcafee.com), employs six levels of security—from the ultra-tight Lockdown level to the permissive Open level. The default setting is the Standard level, which alerts the user when a new or unknown program is seeking Internet access.

When the firewall is set to Lockdown, that effectively shuts down your Internet access. It blocks all incoming and outgoing connections to networks, including your access to the Web and email programs.

To get out of Lockdown, go to the Internet & Network Configuration window in Personal Firewall and click Advanced. This opens the Security Level pane. Here, move the slider from Lockdown to another security level. Moving the slider even one position to the Stealth security level should restore your access to IE. After you've chosen a security level, click OK.

Modify Your Firewall Rules

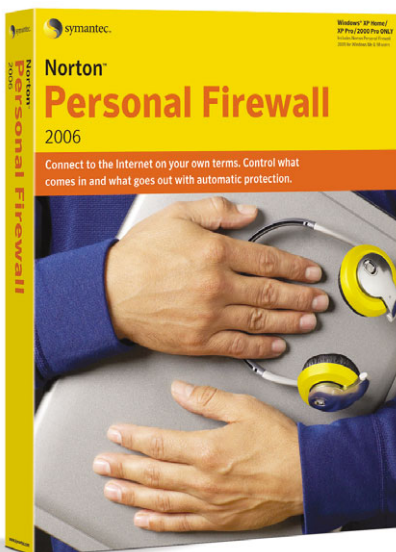
In addition to security settings, firewalls contain specific rules you can modify that govern how programs on your system access the Web. Thus, if you're having problems with



Windows Firewall can help protect your computer by blocking unauthorized access from outside network or Internet communications.

your browser, try modifying your firewall rules.

We'll use Norton Personal Firewall as an example. Click Personal Firewall and then click Configure. On the Programs tab, choose from the Settings For drop-down menu and then choose the Network Location that contains the program rule you want to change. In



Short of shutting down a third-party firewall, such as Norton Personal Firewall, try turning down the settings in the firewall so that it doesn't block all programs, including Internet Explorer.

the Manual Program Control list, click the program rule you want to change.

In the Internet Access column, use the drop-down menu to select Custom or Manually Configure Internet Access. Choose the firewall rule you want to change and then click Modify.

You will then need to determine the action the rule should take (Action tab), the type of connection the rule should monitor (Connections tab), the computers the rule should monitor (Computers tab), and the protocols and ports the rule should monitor (Communications tab). There are additional measures you can take on the Tracking, Description, and Locations tabs. When you are finished modifying the rule, click OK.

Update Your Virus Protection

If a firewall detects a security risk, such as one posed by a virus or worm, it might prevent a user from going online through IE. This is why it's very important to keep your antivirus program updated. When you update your antivirus program, you are staying on top of the virus definitions the program uses to identify the latest virus threats.

Of course, it's ideal to do this on a regular basis so that your system does not get infected. But if you find access to IE blocked and tweaking the settings in your firewall doesn't work, the problem might actually be a virus. One solution is to go online with a different computer and visit the Web site of the manufacturer of your antivirus program. Download the latest definitions to a CD and then insert the disc into the computer with the nonfunctioning IE.

Once you load the new definitions, initialize a full-system scan with your antivirus program and then use a repair wizard or similarly named tool to fix any security risks that are found. Restart your system, and you should be able to launch IE. ■

BY RACHEL DEROWITSC

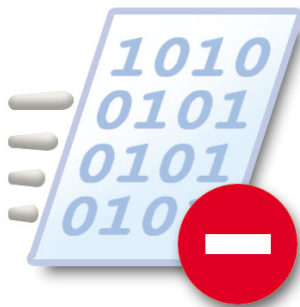
EXAMINING ERRORS

BY JEFF DODD

Problem: When attempting to open a program, a reader receives an error message. The message prevents the reader from opening the program.

The reader's computer is running Windows XP SP2 (Service Pack 2).

Error Message: "Data Execution Prevention – Microsoft Windows. To help protect your computer, Windows has closed this program."



Solution: Data Execution Prevention is a feature in WinXP SP2 that is designed to protect a PC against the ravages of malware. Unfortunately, it may trigger itself inadvertently when it comes up against a program it doesn't recognize. That appears to be the problem in this situation.

The reader can resolve the issue by configuring Data Execution Prevention so that it recognizes the program in question. To do so, the reader should open the Start menu, right-click the My Computer shortcut, and select Properties from the resulting pop-up menu. The System Properties dialog box will appear on-screen. The reader then should access the Advanced page tab, locate the Performance heading, and click the corresponding Settings button.

When the Performance Options dialog box appears on-screen, the reader should open the Data Execution Prevention tab, select the Turn On DEP For All Programs And Services Except Those I Select option, and click the corresponding Add button. He then can use the resulting Open dialog box to locate the problematic program on his PC and open it (he can refer to the program's users manual or contact the software developer to learn where the program is installed on his computer). The program will appear in the Performance Options dialog box. Finally, the reader should click OK to close the dialog box and reboot his system. The error message should no longer disrupt his attempt at opening the program. ■

Problem: Each time a reader tries to shut down Windows XP, he receives an error message. The message flashes briefly on-screen and then reboots Windows. The reader has checked his system repeatedly for malware and come up empty-handed.

Error Message: "ccSvcHst.exe – Application Error. The instruction at '0x0959A2DF' referenced memory at '0x05959A2DF'. The memory could

not be written. Click on OK to terminate the program."

Solution: We're glad to see that the reader scanned his system for viruses and spyware in an attempt to resolve this issue. That is a prudent response to any error message. Interestingly, however, this error message is most likely caused by a conflict created by the antivirus utility he has chosen to use.

Specifically, Ccsvchst.exe is a file associated with Norton AntiVirus. This particular error message is linked to a known bug in the latest edition of the antivirus utility. It is assumed the error occurs because the Windows shutdown routine operates faster than the antivirus utility can close itself down.

The reader can try to eliminate the error by running the Symantec LiveUpdate tool that was installed along with Norton AntiVirus. Hopefully, LiveUpdate will download and install the fix that eliminates the error. If not, the reader can visit the Symantec Home & Home Office Support site at www.symantec.com/home_homeoffice/support/index_ts.jsp and run the AutoFix Tool. The online diagnostic tool will scan the reader's system and suggest a solution for any problems it finds.

If the reader continues to receive the error message, we advise the reader to uninstall Norton AntiVirus. This is known to eliminate the problem. The reader then may try to reinstall the antivirus utility once the system is running normally again. ■

Problem: Following an automatic Windows update, a reader receives an error message each time he starts his PC.

Error Message: “We apologize for the inconvenience but Windows did not start successfully.”

Solution: This error message typically occurs when a computer user makes a change to the computer’s hardware or software configuration. In this case, the reader knows that the problem relates to the software configuration, which changed when Automatic Updates took place. The reader can take several steps to resolve the issue.



First, he should try to run System Restore to revert back to the last known good configuration. He can access System Restore in WinXP by opening the Start menu; burrowing through All Programs, Accessories, and the System Tools folder; and selecting the System Restore option. When the System Restore window appears on-screen, the reader should follow the instructions to restore his computer configuration to a date that precedes the problematic Windows update. He then should reboot his system. Hopefully the error will be gone for good.

If it is not, the reader should try to pinpoint the program or file that has created the conflict within the Windows startup routine. He can do so by opening the Start menu, selecting Run, typing `msconfig` in the Open field of the resulting dialog box, and clicking OK. The System Configuration Utility will appear on-screen. The reader should select the Diagnostic Startup – Load Basic Devices And Services Only option on the General page tab and click OK. He then should reboot the PC.

If the error message does not appear, the reader should return to the System Configuration Utility and

access the Startup page tab. The reader should click the Disable All button and then select one item in the list of startup items. Next, he should click OK and reboot the PC. If the error message does not appear, the reader should return to the Startup page of the System Configuration Utility, select another item in the list of startup items, and reboot the PC. The reader should repeat this process, selecting each startup item individually until he identifies the one that causes the error message to appear during the boot routine. If he is able to find the problematic program in question among the list of installed programs, he can remove it from his system by accessing the Add Or Remove Programs tool via the Control Panel.

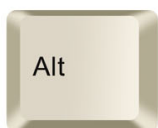
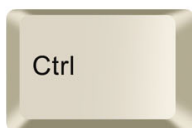
If the reader cannot remove the problematic program or the problem persists, he should try an in-place upgrade to restore WinXP to a clean configuration that works. He can get complete details about how to perform such a procedure by visiting the *Smart Computing* Web site (www.smartcomputing.com) and reviewing the contents of “Repair Windows XP: The In-Place Upgrade Saves The Day” (October 2005 issue). ■

Problem: Each time a reader starts her PC, she receives an error message that prevents Windows from loading completely. If she presses CTRL-ALT-DELETE several times, she eventually gets it up and running.

Error Message: “Explorer.exe. The application failed to initialize properly. 0xC0000142. Click OK to terminate the application.”

Solution: Several situations may cause the preceding error message. Maybe some key system files have become corrupted. Maybe the computer’s settings have been configured incorrectly. Maybe the reader is running software that conflicts with another program on the PC. In the case of a software conflict, the reader can try to shut down (or possibly uninstall) the offending software. This error can, for example, relate to a conflict

with an antivirus program, so it’s best that the reader check that possibility first. However, whatever the reason for this error message, the best solution might be for the reader to reformat the hard drive and reinstall Windows. This is a major problem, and any other solution may only serve as a mere bandage. Before reformatting, the reader should round up the installation discs for all of her software and back up all of her data to secure media. ■



The application failed to initialize properly.

Have questions about an error message you’ve seen? Send us your message (errormessages@smartcomputing.com), and we’ll try to decipher it. Tell us what version of Windows you’re using, give the full text of the error message, and provide as many details in your explanation as possible. Volume prohibits individual replies.

FAST FIXES

Update For Windows Vista

Problem: Microsoft has identified a problem with the initial release of Windows Vista which may cause some reliability issues when using USB devices.

Resolution: Download and install a 386KB file (Windows 6.0-KB925528-x86.msu) which improves the reliability of USB technologies on Windows Vista. Go to support.microsoft.com/search and type **KB925528** in the For field in the blue box in the center of the screen and click the Search button. In the resulting list of search results, click Reliability Update For The USB Stack In Windows Vista. Under the heading Update For Windows Vista (KB925528), click Download The KB925528 Package Now. On the resulting Update For Windows Vista (KB925528) page, click the Continue button in the upper-left corner of the Quick Details box in the center of the screen. Follow the instructions on the screen to validate your copy of Windows. When you again see the Update For Windows Vista (KB925528) screen, click the Download button. When prompted, choose to save the download to your hard drive. After the download is complete, locate the file and double-click it to launch the installer. Follow any instructions on the screen. Restart your computer when you are finished.

www.microsoft.com/downloads

Hamrick Software VueScan 8.4.13

Problem: Hamrick Software has identified several issues in earlier versions of its VueScan software which includes problems with HP's ScanJet 8300 and some Epson scanners, name changes for multipage PDF (Portable Document Format) files, and folders that include a dollar sign in the file name.

Resolution: Download the VueScan 8.4.13 (or the most recent version available) from Hamrick Software's Web site (www.hamrick.com). Click the Click Here link in the If You're Using Windows box. If prompted, click Open or Run to install the update rather than saving it to your hard drive. Follow any on-screen instructions. When the installation is complete, click the Start menu, Programs or All Programs, and VueScan. In VueScan, click the Help menu and About VueScan. Enter your customer number in the Customer Number field and type your software's serial number in the Serial Number field. If you lost your customer number or serial number, you can request the information by filling out a Web form at www.hamrick.com/rep.html. Once you've entered your customer number and serial number in the designated fields, click OK.

www.hamrick.com

Update For Windows Vista

Problem: Microsoft identified an error in Windows Vista in which the operating system would sometimes send information about a system error without first prompting you to choose whether you wanted to send the information to Microsoft.

Resolution: Download and install a 183KB patch that will provide you with increased privacy by first prompting you before sending application-error data to Microsoft. Go to support.microsoft.com/search. In the blue box in the center of the screen, type **KB930857** in the For field. Click the link An Update Is Available For Windows Error Reporting In Windows Vista To Make Sure That Problem Reports Are Sent Only After You Have Granted Permission. Scroll down the screen and click the Download The

Update 930857 Package Now under the Windows Vista heading (which is about half of the way down the page). On the resulting Update For Windows Vista (KB930857) page, click the Continue button next to Validation Required. Follow the instructions on the screen to validate your copy of Windows. Once the Update For Windows Vista (KB930857) page appears on the screen again, click Download. When you are prompted to do so, choose to save the file to your hard drive. When the download is complete, locate the file (Windows6.0-KB930857-x86.msu) and double-click it. Follow any on-screen instructions to complete the installation. Restart your computer once the process is complete.

www.microsoft.com/downloads

FIX OF THE MONTH

Firefox 2.0.0.2

Problem: Mozilla has identified several security issues in earlier releases of Firefox 2. In addition, some changes were necessary to bring Firefox 2 into better compatibility and operation with Windows Vista.

Resolution: Download Firefox 2.0.0.2 from www.mozilla.com/firefox. Click the green Download Firefox – Free button. When the Opening Firefox Setup 2.0.0.2.exe dialog box appears, make sure the Save To Disk radio button is selected and click OK. Locate the 5.7MB file you downloaded (Firefox Setup 2.0.0.2.exe) and double-click it to install the update.

www.mozilla.com/firefox

Q & A

Need help with your hardware or software? Looking for simple explanations on technical subjects? Send us your questions!

Get straight answers to your technical questions from *Smart Computing*. Send your questions, along with a phone and/or fax number, so we can call you if necessary, to: *Smart Computing* Q&A, P.O. Box 85380, Lincoln, NE 68501, or email us at q&a@smartcomputing.com. Please include all version numbers for the software about which you're inquiring, operating system information, and any relevant information about your system. (Volume prohibits individual replies.)



Utilities

Q How do I delete an unwanted file? For example, I cannot delete the application Spam Nullifier.

A According to the Spam Nullifier Web site (www.spamnullifier.com), you can remove Spam Nullifier in two ways: You can use the Add Or Remove Programs utility in

the Windows Control Panel, or you can manually delete the C:\PROGRAM FILES\Spam Nullifier Pro folder. We usually recommend trying the Add Or Remove Programs utility before resorting to brute force folder deletion. Be sure that you've shut down Spam Nullifier before you try to remove it.



Online

Q I've read that it's pretty simple for others to access and read someone else's email. How can I prevent someone from snooping through my email?

A It's unfortunate that many computer users don't realize that it's easy for someone to read their email. And it's doubly unfortunate because methods to protect your email are freely available.

For most users, email and your email credentials are sent in what's known as cleartext. **Cleartext** means that the information is unencrypted and can be read by anyone who can eavesdrop on the email as it traverses the Internet. Your email credentials are your username and password, usually entered in to your email client when you set up your email account.

Who can eavesdrop on your email? Anyone who can listen to network traffic on the path that your email takes as it is sent and received. If you're using a wireless access point that is not protected by one of the many available encryption protocols, someone else could "sniff" this traffic and grab the contents of your email, or worse, your account information. Armed with your username and password, an unauthorized user could read all of your email, as well as impersonate you.

If you use a public computer at a library or Internet café, your email may also be vulnerable to compromise. Even a disgruntled employee

with your ISP (Internet service provider) can monitor unencrypted email with relative ease.

In addition to eavesdropping on email, it's trivial to impersonate someone through email. Traditional email relies upon trusting the sender to properly identify himself to the recipient. In this day and age of spam and phishing attacks, this trust seems quaint and naive.

Fortunately, there's a solution to both problems: public key encryption. **Public key encryption** is a technique for encrypting data, as well as identifying the sender of data. In this case, the data is email. Public key encryption uses two keys: a public key that is freely distributed and a private, secured key that should never be shared. The theory behind public key encryption is based on complex mathematical models, but, fortunately, you don't need to be a Fields Medal recipient to use public key encryption.

For example, let's say that Bob wants to send Sally an email with company details that are best kept private. Bob first sends Sally an email with his public key. Sally verifies that the key she received is truly from Bob (we'll explain how in a minute). Sally then sends Bob an email with her public key that Bob in turn verifies as being Sally's.

Next, Bob composes his email, and when he's finished, he has his email client encrypt the email, using Sally's public key. He then sends the email on to Sally, who uses her private key to decrypt the email into cleartext she

can read. When she's done, she composes her reply and encrypts it using Bob's public key. When Bob receives it, he uses his own private key to decrypt the message.

How does Sally know that the public key she initially received was really from Bob? When she receives the key, she examined it to see whom it was issued by and whether the issue vouched for Bob. Keys (often referred to as certificates) are issued by CAs (Certificate Authorities). One of the more prevalent certificate authorities is Thawte (www.thawte.com), which provides free personal email certificates. When you request an email certificate from Thawte, you'll eventually receive a certificate that is vouched for by a notary.

Once you're armed with an email certificate, you'll want to configure your email client to use it. The most common tactic is to simply attach your certificate as a signature in your emails. This won't encrypt your email,

but it will provide a digital signature signifying your identity, as well as showing that your message wasn't tampered with in transit.

To encrypt your email, you'll need to have your recipients' public keys. Send them to Thawte to request an email certificate, and once you have their public keys, you can exchange encrypted email. As you build up a collection of public keys from frequent correspondents, you'll be able to encrypt the bulk of your email.

Finally, if you use a Web-based email provider, be sure to take advantage of the encryption services it offers. For example, Gmail can normally be accessed by visiting www.gmail.com. However, this is an unencrypted Web page and unnecessarily exposes your username and password. Instead, use the secure "https" (Hypertext Transfer Protocol, Secure) to protect your identity; <https://www.gmail.com> takes you to your Gmail account over a secure connection.



Q Can flash drives be used to migrate data and programs from an old computer to a new computer? If so, would there be any problem in migrating from an old computer with Windows XP SP2 (Service Pack 2) to a new computer running Windows Vista?

A Flash drives are a convenient way of migrating data such as files between computers, but attempting to migrate applications is often unsuccessful due to the way Windows manages applications.

When you install an application onto your computer, it usually creates a folder for the application in C:\PROGRAM FILES, naming the folder with either the software vendor's name or the name of the program itself. Although there are usually numerous files in this directory, including the actual program, migrating the application by simply copying this folder to your new computer will not work for the majority of Windows applications.

Most modern Windows applications store settings and configuration data in a repository known as the Windows Registry. In addition to application data, the Registry contains information specific to each Windows installation.

When an application is launched, it usually checks for a Registry key that specifies how the application should operate; for example, which services Windows provides it and other important configuration options. The application can also access information about devices and peripherals that it may need to interact with.

In addition, Windows installers often place DLLs (dynamic-link libraries) or similar small modules in other folders, including C:\WINDOWS and its subfolders.

The result is that simply copying the application's folder out of the C:\PROGRAM FILES directory will leave the application orphaned without the settings and configurations it needs to function properly.

To address this, numerous software vendors have created applications to migrate your applications from one computer to the next. One of our favorites was the oddly named Alohobob PC Relocator, but this utility was acquired by Microsoft and has been discontinued (though you may still be able to purchase it from a software reseller). Another application in this vein is PCmover (\$49.95 for download; www.laplink.com).

Our recommendation is to simply reinstall your applications onto your new computer and then migrate your documents to the new computer. You may have to reinstall any

patches or updates, but the result will be a clean, pristine computer with applications that will function properly.



Hardware

Q I need to replace the battery in my HP Pavilion ze5400 laptop. What are the pros and cons of using OEM (original equipment manufacturer) vs. off-brand batteries?

A We checked both HP's Web site and several battery resellers for pricing data and found that several sites offered batteries that were significantly cheaper than the \$129.99 replacement battery offered by HP. Despite this disparity in pricing, we recommend that you purchase your battery from HP (www.hp.com).

Our reasoning is that whenever you purchase an off-brand battery for a laptop, you're making a great leap of faith. Battery vendors typically offer three types of batteries—OEM batteries, refurbished batteries, and no-name batteries—designed to work with your particular notebook computer.

When a vendor is selling an OEM battery, the price is usually fairly close to the price offered by the notebook's manufacturer. Because the price differential is usually quite small, it's usually not worth buying anywhere except from the notebook manufacturer. The manufacturer usually offers better service and support, and

our experiences with HP generally have been excellent over the past several years.

When a vendor is selling a refurbished battery, it's similar to buying a car with a rebuilt engine—the mechanic may feel that the engine is as good as new, but you're not guaranteed a smooth ride. The same holds true with no-name or knock-off batteries. These are manufactured to work with your computer, but they don't necessarily have the same longevity or performance of an OEM battery.

One factor that may affect your decision is how long you plan on using this notebook. You didn't mention when you purchased your ze5400, but it's been available for over four years. At that age, it's getting long in the tooth and may have difficulty running newer operating systems, such as Windows Vista, without running out of steam.

If you only plan on keeping your Pavilion for another year or so, it may be wise to purchase a more affordable battery now and save the money for when you replace your notebook. In contrast, if you plan on keeping your notebook for several years, we feel it'd be worth it to spend the extra money on an OEM battery from HP.



Windows

Q I installed free software (CCleaner) on my PC, and it works flawlessly. It has a selection that will delete Hotfix Uninstallers, and I am wondering if I need to choose that option. I know what hotfix downloads are, but what are hotfix uninstallers? Do they need to be left on my computer? The software instructions indicate that the cleaner does not delete files that are needed on my PC.

A CCleaner (www.ccleaner.com) is a free-ware utility that sweeps the gunk out of your PC. It does away with a long list of files, such as Internet cache files, cookies, extraneous Registry entries, temporary files, and so on.

Hotfixes are updates to the WinXP operating system (Home or Pro editions) published periodically by Microsoft to fix bugs and/or security risks found in the operating system between the release of major service packs. Most of the time, hotfix updates fix the problems they were meant to fix. Occasionally, however, a hotfix will cause additional problems, depending on the mix of hardware components and software applications running on a specific system—and that's when you may want to uninstall the hotfix. So, whether your WinXP hotfix uninstall information files are *needed* depends on your instincts, because there may come a time when you need to roll back a hotfix or two.

Under normal circumstances, you won't notice the amount of space involved if you choose to not delete the hotfix uninstallers. However, if you have dozens of these files, the amount of space they consume can begin to add up—particularly if you have an older system with limited hard drive capacity.

An alternative to deleting these files is to archive them. Using whatever removable medium works best for you (CD, Zip cartridge, floppy diskette, etc.), move the uninstall files off your hard drive and hang onto them. If you ever have an urge to uninstall a hotfix, simply transfer them back to where you found them.



Online

Q I have been trying to make credit card purchases over the Internet, but lately there has been no little yellow lock displayed in the lower-right corner of my screen when I visit sites that claim to be secured. I've opted to order by phone rather than trust these Web sites. For instance, when trying to make a purchase at Honestech, there was no security lock icon displayed on the screen where I was prompted to enter my credit card information. Can I trust these Web sites to actually be secure?

A We visited Honestech's Web site (www.honestech.com) and used its online

store to replicate the symptoms you experienced. Although the online shop was using "https" in the URL, none of the four browsers we tested displayed the security padlock.

Although the yellow padlock icon doesn't guarantee the overall security of your online purchase, we consider it to be the minimum requirement for a safe online transaction. A misconfigured server or Web site might be the reason the padlock is not being displayed. However, in the end, we feel that purchasing from a Web site that doesn't display the padlock is an unnecessary risk. In this day and age of phishing and other types of online fraud, it pays to be wary.



Windows

Q My PC currently has 89,717 files, with over 15GB of free space on a 40GB hard drive. Can I safely delete some files and folders?

A You can delete anything you like on your computer; whether you should is a different question. The simplest solution here is to acquire a full-featured uninstaller program that allows (or sometimes even forces) you to make backups of applications, files, and folders before deleting them and may simply prohibit deletion

of files that, if missing, would prevent your system from working properly. There are many choices of freeware (free to download and use) and demoware (free to try and then buy).

A few freeware alternatives include ZSoft Uninstaller 2.3.4; QuikUninstall 1.1; and Easy Uninstaller 1.5, build 61. A couple of good demoware products include Your Uninstaller 2006 (\$39.99; www.ursoftware.com) and Advanced Uninstaller Pro 8 (\$39; www.innovative-sol.com).



Windows

Q I have Windows XP. The Taskbar has become two rows rather than one. When I do a click and drag, it won't resize. Instead, it almost disappears from the bottom of the screen.

A Virtually everything you'll want to adjust with the WinXP Taskbar or Start menu can be found by right-clicking an empty space anywhere along the Taskbar. In the context

menu that will appear, you can lock and unlock the Taskbar—which should help you solve your resizing problem. Aside from the other choices on the context menu (such as adding or disabling various preset and/or custom toolbars, organizing on-screen windows, and more), you may also select Properties, which will allow you more customization of the Taskbar, notification area, and Start menu.

Frequently Asked Questions

Answers to users' most common questions about **Network Storage**

If you'd rather not buy additional network storage devices, you could opt for a device with USB 2.0 ports so that you can connect supplemental USB external drives to the device as additional network drives.

FAQ What are the differences between new network storage drives I am seeing lately and other external hard drives on the market?

It's really all about the interface. Most people are used to local ATA (Advanced Technology Attachment), SATA (Serial ATA), or SCSI (Small Computer System Interface) hard drives installed inside a PC or external hard drives connected to a host PC through an external USB or FireWire port. Network storage devices also use one or more hard drives but connect to your 10/100 Ethernet network instead of directly to a computer.

There is certainly nothing new about sharing files and data across a LAN (local-area network), but this typically means establishing shared data on each PC—potentially opening each PC to security risks. A dedicated external network storage device can serve as a central repository for shared data, which can then be accessed by other network users without opening a door to each of your computers.

Network storage is also very expandable. Where a PC or server can only hold a limited number of hard drives, it's a simple matter to add new network storage devices as your data grows. If you'd rather not buy additional network storage devices, you could opt for a device with USB 2.0 ports so that you can connect supplemental USB external drives to the device as additional network drives. The Buffalo Technology LinkStation 250GB Pro Network Shared Storage (about \$225; www.buffalotech.com) is one example of a network storage device with 250GB and two USB 2.0 ports for additional external hard drives.

FAQ Do I need any extra software or drivers to use network storage devices? How do I set up a network storage device so that anyone in the house can use it?

Network storage devices typically offer very simple setups. For devices such as Netgear's SC101 (\$129.99; www.netgear.com), you'll

need to install one or two ATA hard drives. But pay attention; some devices, such as the aforementioned Buffalo Technology LinkStation, already have a 250GB hard drive installed. Next, you'll need to connect the cable between the device and a free port on your network router and turn the unit on. It will automatically receive its own unique IP (Internet Protocol) address from the DHCP (Dynamic Host Configuration Protocol) server on your network.

You will need to install software on each PC that will access the new network storage device. The necessary software is almost always bundled with the device, and it uses a wizard to simplify the installation; this usually involves installing several drivers, detecting the device, and then allocating storage on the device for that PC (or sharing storage that's already been allocated). When you complete the software installation, that PC will have a new drive letter that appears in Windows Explorer. Remember to always follow the installation instructions that accompany your particular network storage device.

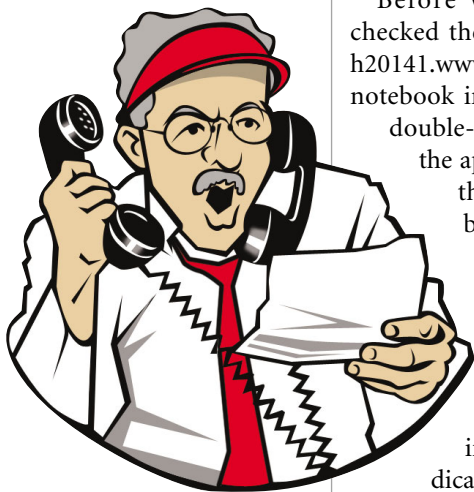
FAQ How do I access my network storage device from a wireless laptop? Can I access the device from across the Internet?

Unfortunately, there is no convenient way to access the network storage device from across the Internet. But wireless devices, such as laptops or desktops with wireless NICs (network interface cards), can access the network storage device the same as wired PCs. Simply install the software that accompanied the device onto each mobile PC.

Bandwidth-intensive files such as video clips can become choppy or interrupted when played across a wireless link—especially if there are multiple wireless users competing for limited bandwidth. If you need to improve playback performance across a wireless network, you should consider upgrading to a faster wireless standard, for instance, the draft 802.11n (dubbed pre-N). ■

Are you having trouble finding a product or getting adequate service from a manufacturer? If so, we want to help solve your problem. Send us a description of the product you're seeking or the problem you're having with customer service. In billing disputes, include relevant information (such as account numbers or screen names for online services) and photocopies of checks. Include your phone number in case we need to contact you.

Letters may be edited for length and clarity; volume prohibits individual replies.



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A Crippled Computer & An Infuriating Install

My 15-month-old HP Pavilion notebook recently became unbootable. After having it checked out, I was told that the integrated graphics adapter had failed and that I'd need to get the motherboard replaced to get the computer up and running again. Because the notebook only had a one-year warranty, I contacted a local computer repair shop about getting the motherboard replaced. It informed me that HP doesn't offer the motherboard for my model of notebook anymore. How can HP stop selling parts for a notebook that is just over a year old?

Paul Knight
Jupiter, Fla.
.....

Before we called our HP contact, we checked the HP Parts Store online at <http://h20141.www2.hp.com/hpparts>, entered Paul's notebook in the appropriate box, clicked the double-arrow button, clicked the link for the appropriate model, and then clicked the List All Parts For This Product button. We scrolled through the list of available parts and found the motherboard Paul needed under the heading PC Board. According to the HP Parts Store, Paul's part was available for \$700. With this information in hand, we forwarded Paul's predicament to our HP contact.

Next, we called Paul's computer repair shop and asked how it checks the availability of HP parts. The representative we spoke with said he remembered checking the HP Parts Store for Paul's motherboard. At the time, HP's site listed the part as unavailable. As a result, he informed Paul that his notebook couldn't be repaired.

According to the legend at the bottom of the HP Parts Store page, a green check mark beside a given part means that the item is in stock; a red check mark denotes parts that are orderable, but you must call for availability; and a

red X refers to parts that are "not orderable in the HP Parts Store." According to HP, the red X can refer to parts that are discontinued or simply unavailable at the time. Our HP contact went on to say that HP recommends its customers only take their computers and devices to HP Authorized Support Providers to avoid this sort of confusion. To find an authorized provider near you, visit tinyurl.com/2guvxl.

Rather than attempt to repair a notebook, HP chose to send him a check for \$1,400 in exchange for the broken computer. Paul got the check in the mail and plans to purchase another HP, only this time he's going to purchase a service contract.

In Smart Computing's March 2007 issue, I read a review for System Suite 7 Professional and decided to purchase it. I went to Avanquest's Web site and tried to download and install the software, but each time I tried, I couldn't get it to install. I also had difficulty getting support with my problems because every phone number I tried related to sales. Can you help me obtain a System Suite 7 Professional on CD so I can install it?

Byron Pevehouse
Bellevue, Wash.
.....

We contacted an Avanquest representative and informed her of Byron's problem. Later that same day, our contact forwarded us a link to an updated version of System Suite 7 Professional and detailed instructions for downloading and installing it. The email also provided Byron with a new installation key, but our contact warned us that it would only be valid once. We passed the information on to Byron, who was able to follow the instructions and install the application. Byron mentioned that the new instructions were much more detailed than those he was using before and it made all the difference in the world. ■

Not Much Of A View

A friend of mine recently took the Vista plunge. Whipped into a frenzy by media coverage and previews of the Aero interface—yes, I have sad friends—he ran out to buy his copy as soon as Vista hit the shelves. He wouldn't wait for informed advice from friends in the industry—or from me, either. You might already know how this story ends, but I'm going to tell you anyway in hopes you avoid a similar fate.

First, he made the mistake of buying based on marketing titles instead of functional requirements. He was convinced, as a committed multimedia downloader and online gamer, that he needed the Ultimate version. None of this Basic nonsense for his machine, thank you very much. We're all foolishly separated from our salaries by marketing hype sometimes (anyone else have universal remotes collecting dust?), but buying the right version is important for more than budgetary reasons. He ended up with all kinds of extra stuff that he couldn't use, such as Windows Media Center, drive encryption, domain support, and Tablet PC tools for a home desktop machine without a TV tuner, sensitive data, or a nifty spin-around screen. All the unnecessary features only served to complicate his system while blowing his budget. Spend a little time researching your needs, matching your hardware to the assorted Vista versions, and making sure you're buying the best fit. Microsoft actually has a good breakdown of what's in each version, but you won't have any trouble finding independent guidance.

Even worse, he didn't have the right hardware to run the Vista features he craved most. Without a video card that has at least 128MB of graphics memory and support for DirectX 9 and WDDM (Windows Display Driver Model), Vista wouldn't even install the flashy Aero interface or its nifty 3D tools and transitions. What's more, until he upgraded to 1GB of RAM, his machine actually ran better with WinXP. I encouraged adding yet another gigabyte, but he was out of computer cash for the month—see the discussion on pocketbook issues above. His printer's and CD burner's manufacturers didn't have Vista drivers available yet, so he encountered new problems with those peripherals. Several of his applications weren't ready for the upgrade, either, and some wouldn't run at all. Had he asked my advice, I'd have recommended starting with Microsoft's Windows Vista Upgrade Advisor utility (available at www.microsoft.com),

following up on its warnings, and pricing out a memory upgrade and new graphics card (just to be safe) before deciding whether to migrate and which version to buy.

In the end, he wasn't sure what the fuss was all about and wished he'd just waited until it was time for a new system with Vista already installed. Discovering that Aero and its 3D rotating windows weren't available without some expensive new hardware, he didn't realize many dramatic improvements in usability. He'd become so attached to the WinXP environment that he immediately switched to Vista's Classic View in the Control Panel and Start menu. Extolling the virtues of Vista's improved security and reliability helped ease my friend's sorrow a little (my soothing public radio voice couldn't have hurt either), but what he really wanted was flash, sizzle, and an easy migration.

Without asking tough questions about why he wanted to upgrade, and without a realistic assessment of his system, he wasn't prepared for Vista. ■

BY GREGORY ANDERSON

"Sunday Drivers" Update

In February, I asked for your advice on utilities that help manage device drivers, cataloging which ones you have and helping keep them up-to-date. Thanks to those of you who wrote in. After some reviewing, I can recommend both Driver Detective (\$29.95; www.drivershq.com) and Driver Agent (\$29.95; www.driveragent.com). They take slightly different approaches—Driver Detective is installable software, Driver Agent is an online service—but both do a good job of detecting your drivers, providing easy-to-read information, and helping you download and install updates. In an interesting dovetail with this month's topic, Driver Detective also provides a Vista-upgrade utility that finds and delivers Vista-compatible drivers for your hardware. ■

Gregory Anderson is a regular contributor to Smart Computing and several other technology publications. He keeps a sharp eye (with the help of thick glasses) on computing trends and enjoys working with geeks of all stripes—most of the time. Reach Greg with your Vista points of view at gregory-anderson@smartcomputing.com.



Come Fly With Me

I don't know about you, but I tend to forget things. I'll walk into a room and immediately wonder why I'm there. Every few days or so, I'll drive off with my coffee cup still sitting on top of my car, where I placed it while looking for my keys. (The location of which I've *also* forgotten.) On workday mornings, I'm perfectly capable of coming downstairs, kissing the cat, scratching my wife behind the ears, and then heading merrily off to work still wearing my bedroom slippers. Sometimes it's embarrassing to be me. (Although I'd like to point out that they're very nice slippers.)

I can't even say that my forgetfulness is due to my increasing age; I've *always* been this way. (But I have to admit that it has gotten worse as I've grown older. Whereas in my younger days I could mentally juggle 10 or 12 things at once, these days I can juggle . . . oh, maybe two. On a good day. If I'm careful.)

In an increasingly complex world, it's tough to remember everything we were trying to do. In fact, it's not even possible to *think* of everything we need to do.

Take software, for example. Developing software is a terrifyingly complicated undertaking. It's fun, it's satisfying, and it's productive, of course. But there's so much to think about, so many issues to consider, that it's a wonder that any software ever gets released. With an application of any complexity at all, there's simply no way to address every potential problem, consider every possible ramification, and test every possible usage scenario. Every software developer knows that it doesn't matter how carefully you design, implement, and test; somewhere along the way, something that you simply *forgot* will come back to haunt you.

With that in mind, consider the F-22 Raptor. The Raptor is America's newest, stealthiest, deadliest, and—at \$300 million apiece—most expensive fighter jet. Built by four major contractors (and innumerable smaller ones), the F-22 weighs 15 tons, flies and maneuvers effortlessly at 60,000 feet, and reaches speeds of almost Mach 2. It boasts the world's most sophisticated avionics suite and software comprised of some 1.7 million lines of code, which controls and reports on almost every aspect of the aircraft, from targeting to course plotting, and from weapons readiness to engine status. As one analyst points out, the Raptor “. . . is the first aircraft to use integrated avionics, where the radar, weapons management system, and electronic warfare system work as one, giving the pilot unprecedented situation awareness.”

Until recently, though, there was one thing that the Raptor could *not* do. When a squadron of F-22s attempted to fly from Hawaii to Japan, it turned out that the \$300 million airplane—designed and built by some of the most talented and dedicated engineers in the world—could not cross the international date line. When the plane attempted to do so, that is, when it crossed the point at which W179.99 degrees becomes E180 degrees, the entire avionics system crashed. The pilots had no attitude reporting, no GPS (global positioning system), in fact, no way even to find their home base; if the squadron hadn't been accompanied by other aircraft that could guide them home, every single Raptor would probably have crashed. Now, that's definitely

“unprecedented situation awareness.” Or perhaps we should call it the ultimate in “situation *un*-awareness.” (It's got to be very interesting to suddenly become “situationally unaware” at 40,000 feet, while traveling at 600 or 700 miles per hour.)

I like to believe that at that very moment, just as the F-22 pilots are staring dumbfounded at their blank screens, a Lockheed Martin software engineer is straightening up his desk, preparing to take a few well-deserved days of vacation after having put the

F-22 project to bed. During his cleanup, he comes across a crumpled Post-it Note, which he tosses in the trashcan, along with 27 mostly empty Diet Coke cans, a broken USB-powered “dancing flower,” a petrified Hostess Twinkie, and half a ham-and-cheese sandwich on light rye that he'd shoved in a drawer two weeks earlier when he realized that he was late for a project status meeting. Scribbled on the Post-it Note in smudged pencil is the following: **DONT FIRGET!!! See Lars and Todd in QC dept: What about Intern'l Dateln?! Is that a problem?!**

But you can stop worrying about our nation's safety. That engineer was let go the very next week. He's now in Redmond, working for Microsoft's security response team, ensuring that Windows Vista remains stalwartly impervious to malicious hacking threats. ■

BY ROD SCHER

Rod Scher is a former software developer and a recovering English teacher. He's also the publication editor of Smart Computing and will no doubt continue in that position until such time as his boss reads this column. Contact Rod at rod-scher@smartcomputing.com.

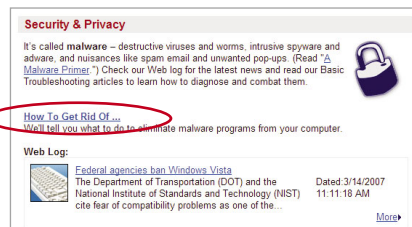


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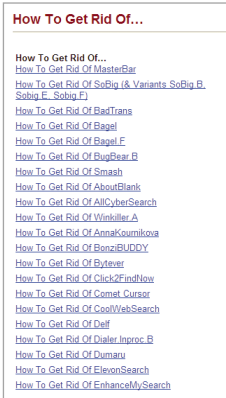


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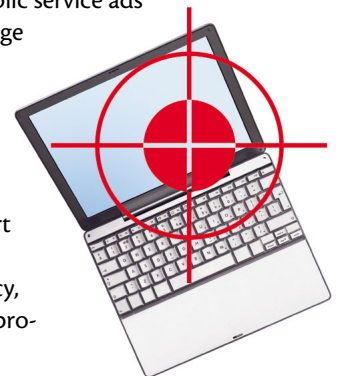
From *Smart Computing's* Dictionary


troubleshoot

To solve problems or attempt to ascertain what may be wrong with a device or program. Most users manuals have a troubleshooting section that lists common problems and their solutions.



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